

PREAMBLE

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.



THE COMMONWEALTH OF MASSACHUSETTS
William Francis Galvin, Secretary of the Commonwealth
State Publications and Regulations

REGULATION FILING AND PUBLICATION

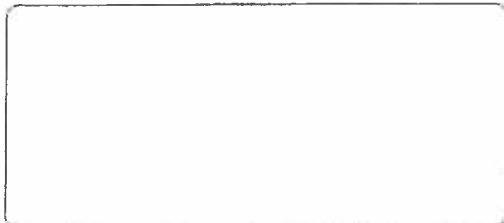
1. Regulation Chapter, Number & Heading: **780 CMR 51.00**
MASSACHUSETTS RESIDENTIAL CODE
2. Name of Agency: **STATE BOARD OF BUILDING REGULATIONS & STANDARDS**
3. This document is reprinted from the Code of Massachusetts Regulations and contains the following:

**This is the
Massachusetts Amendment
to the International Residential Code 2015
9th Edition
as adopted by the
State Board of Building Regulations and Standards and filed with the
Office of the Secretary of the Commonwealth**

Under the Provisions of Massachusetts General Laws, Chapter 30A, § 6, and Chapter 233, § 75,
this document may be used as evidence of the original documents on file with the Secretary of the Commonwealth.

Compiled as in full force and effect

10/20/2017



A true copy attest:

A handwritten signature in cursive script that reads "William Francis Galvin".

WILLIAM FRANCIS GALVIN
Secretary of the Commonwealth

CHAPTER 1 - SCOPE AND APPLICATION - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following 2015 *International Codes as published by the International Code Council (ICC)*.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are ***unofficial versions*** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

780 CMR 51.00: MASSACHUSETTS RESIDENTIAL CODE (*Unique to Massachusetts*)

Chapter 1 Delete in its entirety and replace with the following:

PART 1 – SCOPE AND APPLICATION

SECTION 101 GENERAL

R101.1 Adoption and Title. The Board of Building Regulations and Standards (“BBRS”) adopts and incorporates by reference the *International Residential Code*, 2015 (“IRC”), as periodically amended by *errata*, the following chapters, as well as 110.R1 through 115AA. These, together with modifications as set forth, shall collectively comprise 780 CMR 51.00: *Massachusetts Residential Code*, otherwise known as the Massachusetts State Building Code, Ninth Edition, Residential Volume.

R101.2 Scope. 780 CMR shall be the building code for all towns, cities, state agencies or authorities in accordance with M.G.L. c. 143, §§ 93 through 100. 780 CMR, and other referenced specialized codes as applicable, shall apply to:

1. the construction, reconstruction, alteration, repair, demolition, removal, inspection, issuance and revocation of permits or licenses, installation of equipment; of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height and their accessory structures not more than three stories above grade plane, and other buildings as described in 780 CMR;
2. the rehabilitation and maintenance of existing buildings;
3. the standards or requirements for materials to be used in connection therewith including, but not limited to provisions for safety, ingress and egress, energy conservation and sanitary conditions, and fire prevention practices;
4. other powers and duties found in M.G.L. c. 143, §§ 93 through 100, but not listed in 780 CMR 51.00; and
5. Owner-occupied lodging houses with five or fewer guestrooms.

R101.3 Intent. The purpose of 780 CMR is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment, and to provide safety to fire fighters and emergency responders during emergency operations.

R101.4 Referenced Codes. Referenced codes include the specialized codes of M.G.L. c. 143, § 96 and other codes and regulations listed in sections 101.4.1 through 101.4.12 and shall be considered part of 780 CMR to the prescribed extent of each such reference. Work regulated by the specialized codes of M.G.L. c. 143, § 96 shall be designed, installed and inspected by individuals authorized to do so in accordance with the specialized codes. However, the impact of work regulated by the specialized codes of M.G.L. c. 143, § 96 and other codes and regulations on work governed by 780 CMR and within the jurisdiction of the building official, shall be subject to inspection by the building official.

R101.4.1 Gas and Fossil Fuel Burning Appliances. Reference to the *International Fuel Gas Code* shall be considered reference to 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Gas fired appliances are governed by 248 CMR. Oil fired appliances are governed by 527 CMR 4.00: *Oil Burning Equipment*.

R101.4.2 Mechanical. The provisions of the *International Mechanical Code* (“IMC”) shall apply to all mechanical systems except for that which is defined as sheet metal work by M.G.L. c. 112, § 237.

R101.4.3 Plumbing. Reference to the *International Plumbing Code* shall be considered reference to 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

R101.4.4 Property Maintenance. Reference to the *International Property Maintenance Code* shall be considered reference to 780 CMR and within the jurisdiction of the building official.

51.00: continued

R101.4.5 Fire Prevention. Reference to sections of the International Fire Code (“IFC”) for fire prevention requirements shall be considered reference to 527 CMR: *Board of Fire Prevention Regulations*. The fire official enforces the provisions of 527 CMR. Reference to sections of the IFC for building code requirements are adopted, except that retroactive requirements of the IFC are not adopted. The building official enforces 780 CMR and all adopted IFC requirements.

The following statute is enforced by the head of the fire department, and shall be appealed through the automatic sprinkler appeals board:

M.G.L. c. 148, § 26H (if adopted through local option): lodging or boarding houses with six or more persons boarding or lodging.

The following statute is enforced by the head of the fire department, and shall be appealed through a court of competent jurisdiction:

M.G.L. c. 148, § 26I (if adopted through local option): certain multiple dwelling units.

R101.4.6 Energy. Chapter 11: *Energy Efficiency* of 780 CMR 51.00 shall apply to all matters governing the design and construction of buildings for energy efficiency.

R101.4.7 Architectural Access. Any reference in 780 CMR to accessibility shall be considered reference to 521 CMR: *Architectural Access Board*. 521 CMR is enforced by the building official.

R101.4.8 Environmental Protection. See 310 CMR: *Department of Environmental Protection* and 314 CMR: *Division of Water Pollution Control*.

R101.4.9 Elevators. Any reference in 780 CMR to elevators shall be considered reference to 524 CMR: *Board of Elevator Regulations*.

R101.4.10 Electrical. Any reference in 780 CMR to the *International Electrical Code* shall be considered reference to 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

R101.4.11 International Residential Code. Any reference in 780 CMR to the *International Residential Code* shall be considered reference to 780 CMR 51.00 through 120.00.

R101.4.12 Residential Contracting. Residential contracting, as defined by St. 2009, c. 27, § 80, is also regulated by M.G.L. c. 142A and 201 CMR 18.00: *Registration and Enforcement of Home Improvement Contractor Program*. For information including, but not limited to registrations, renewals, and filing of complaints against a Home Improvement Contractor (“HIC”), interested persons are directed to contact the Office of Consumer Affairs and Business Regulation, which administers the program.

R101.5 BBRS Advisory Committees. BBRS technical advisory committees support requests from and by the BBRS as it deems necessary in accordance with M.G.L. c. 143. Titles and membership of these technical advisory committees may be viewed at <http://www.mass.gov/ocabr/government/oca-agencies/dpl-lp/opsi/>. These technical advisory committees include, but are not limited to, the following committees with their respective composition listed:

Energy Advisory Committee (“EAC”)

- One Division of Professional Licensure staff
- One Department of Energy Resources staff
- One mechanical engineer (with HVAC expertise)
- One architect
- One utility company designee
- One building envelope expert
- One lighting controls expert
- One building official
- One IAQ/filtration expert
- One high performance housing expert
- One ASHRAE 62.1, 62.2, and 90.1 expert

51.00: continued

Fire Protection Fire Prevention Committee ("FPFP")

One Division of Professional Licensure staff
One Department of Fire Services staff
Boston Fire Department Commissioner or designee
Two fire protection engineers
One fire chief representative
One building official representative
One architect representative
One residential contractor representative (for topics related to the residential volume)
One general contractor representative (for topics related to the base volume)
One sprinkler contractor
One fire alarm contractor

Property Maintenance Advisory Committee ("PMAC")

One Division of Professional Licensure staff
One Department of Public Health staff
One Department of Housing and Community Development staff
One Department of Fire Services staff
One building official representative
One health officer representative
One residential property management representative
One commercial property management representative
One low-income tenant representative
One architect representative
One Housing Court representative

Chapter 34 (Existing Buildings) Committee

One Division of Professional Licensure staff
One Department of Fire Services staff
EAC Chair or designee
FPFP Chair or designee
SAC Chair or designee
One building official representative
One general contractor representative
One mechanical engineer
One fire prevention Officer
One code consultant (with existing buildings expertise)
One architect

Note: For the purposes of the composition of the BBRs's Chapter 34 technical advisory committee, a code consultant shall be any person with specific expertise applying, and interpreting 780 CMR. Said person shall have at least five years of documented experience applying and interpreting the base and residential provisions of 780 CMR in a professional setting. A code consultant shall be duly licensed, or certified, as one or more of the following: architect, professional engineer, engineer-in-training, building official, fire prevention officer, or construction supervisor.

Structural Advisory Committee ("SAC")

One Division of Professional Licensure staff
One architect representative (with structural expertise)
One building official representative
One structural engineer (with seismic expertise)
One structural engineer (with ASCE 7 expertise)
Six structural engineers (in addition to the two listed above)

Geotechnical Advisory Committee ("GAC")

One Division of Professional Licensure staff
One building official representative
Nine geotechnical engineers

51.00: continued

SECTION 102 APPLICABILITY

Concurrency Period. Applications for building permits and related construction and other documents filed through January 1, 2018, may comply either with 780 CMR effective October 20, 2017, or with the Eighth Edition version of 780 CMR in effect immediately prior to amendment, but not a mix of both. After January 1, 2018, concurrency with the Eighth Edition ends, and all applications for building permits and related construction and other documents shall comply with 780 CMR as amended effective October 20, 2017 only.

R102.1 General. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable. Where, in any specific case, different sections of 780 CMR specify different materials, methods of construction or other requirements, the most restrictive shall govern.

Exception: Where enforcement of a provision of 780 CMR would violate the conditions of a listing or manufacturer's instructions, the conditions of the listing and manufacturer's instructions shall apply.

R102.2 Other Laws. The provisions of 780 CMR do not purport to override or nullify any provision of state or federal law. The Massachusetts General Laws and the Code of Massachusetts Regulations are often referenced throughout 780 CMR. It is the code user's responsibility to determine all applicable laws and regulations relevant to 780 CMR or any portion thereof.

R102.2.1 DDS Facilities. Additional building features required by the Massachusetts Department of Developmental Services ("DDS") do not change the classification of residences operated or licensed by DDS as dwellings subject to 780 CMR.

R102.2.2 Municipal Bylaws or Ordinances. 780 CMR applies state-wide. When municipal bylaws and ordinances conflict with 780 CMR, 780 CMR shall govern unless the bylaws or ordinances were promulgated in accordance with M.G.L. c. 143, § 98.

R102.3 Application of References. References to chapter or section numbers, or to provisions not specifically identified by number, shall be construed to refer to such chapter, section or provision of 780 CMR 51.00.

R102.4 Referenced Codes and Standards. The codes and standards referenced in 780 CMR shall be considered part of the requirements of 780 CMR to the prescribed extent of each such reference. Where differences occur between provisions of 780 CMR and referenced codes and standards, 780 CMR shall apply.

R102.5 Partial Invalidity. In the event that any part or provision of 780 CMR is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions.

R102.6 Existing Structures. The legal occupancy of any structure existing on the date of adoption of 780 CMR shall be permitted to continue without change, except as is specifically covered in 780 CMR or as deemed necessary by the building official for the general safety and welfare of the public.

R102.6.1 Laws in Effect. Unless specifically provided otherwise in 780 CMR, and narrow to the provisions of 780 CMR, any existing building or structure shall meet and shall be presumed to meet the provisions of the applicable laws, codes, rules or regulations, bylaws or ordinances in effect at the time such building or structure was constructed or altered and shall be allowed to continue to be occupied pursuant to its use and occupancy, provided that the building or structure shall be maintained by the owner in accordance with 780 CMR.

R102.6.2 Laws Not in Use. In cases where applicable codes, rules or regulations, bylaws or ordinances were not in use at the time of such construction or alteration, the building or structure shall be maintained by the owner in accordance with 780 CMR.

51.00: continued

R102.6.3 Less Stringent. In cases where the provisions of 780 CMR are less stringent than the applicable codes, rules or regulations, bylaws or ordinances at the time of such construction or substantial alteration, the applicable provisions of 780 CMR shall apply, providing such application can be reasonably demonstrated not to result in danger to the public, as determined by the building official.

R102.6.4 Existing Means of Egress, Lighting and Ventilation. The building official may cite any of the following conditions in writing as a violation and order the abatement within a time frame deemed necessary by the building official to make the building environment safe, healthy, or otherwise comply with 780 CMR:

- a. Inadequate number of means of egress;
- b. Egress components with insufficient width or so arranged to be inadequate, including signage and lighting; and
- c. Inadequate lighting and ventilation.

Where full compliance for means of egress, lighting and ventilation are not practical, the building official may accept compliance alternatives, engineering, or other evaluations that adequately address the deficiency.

R102.7 Moved Structures. Buildings or structures moved into or within the jurisdiction of the Commonwealth shall comply with the provisions of Appendix J to 780 CMR 51.00, provided that any new system shall comply as far as practicable with the requirements for new structures and provided further that the siting and fire separation distance comply with the requirements for new structures.

R102.8 Maintenance of Existing Buildings and Structures. All buildings and structures and all parts thereof, both existing and new, and all systems and equipment therein which are regulated by 780 CMR shall be maintained in a safe, operable and sanitary condition. All service equipment, means of egress, devices and safeguards which are required in a building or structure, or which were required by a previous statute in a building or structure, when erected, altered or repaired, shall be maintained in good working order.

R102.8.1 Owner Responsibility. The owner shall be responsible for compliance with the provisions of 780 CMR.

PART 2 - ADMINISTRATION AND ENFORCEMENT

SECTION 103 ENFORCEMENT

R103.1 Municipal and State Enforcement. Reference to the Department of Building Safety shall be considered reference to the building official. 780 CMR shall be enforced by the building official, and in accordance with M.G.L. c. 143, §§ 3, 3A, 3Y, and 3Z and M.G.L. c. 22, the building official shall include the building commissioner or inspector of buildings, local inspector, and state building inspector.

SECTION 104 DUTIES AND POWERS OF BUILDING OFFICIAL

R104.1 General. The building official is hereby authorized and directed to enforce the provisions of 780 CMR in accordance with M.G.L. c. 143, §§ 3 and 3A. The state inspector of the Division of Professional Licensure, Office of Public Safety and Inspections, shall enforce 780 CMR as to any building or structure within any city or town that is owned in whole or in part by the Commonwealth or any departments, commissions, agencies, or authorities of the Commonwealth.

R104.2 Applications and Permits. The building official shall receive applications, review construction documents and issue permits for the erection, and alteration, demolition and moving of buildings and structures, inspect the premises for which such permits have been issued and enforce compliance with the provisions of 780 CMR.

R104.3 Notices and Orders. The building official shall issue all necessary notices or orders to ensure compliance with 780 CMR.

51.00: continued

R104.4 Inspections. The building official shall make all of the required inspections, or the building official shall have the authority to accept reports of inspection by approved agencies or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such approved agency or by the responsible individual. The building official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise, subject to the approval of the appointing authority.

R104.4.1 Coordination of Inspections. Whenever in the enforcement of 780 CMR, or another code or ordinance, the responsibility of more than one enforcement official is involved, it shall be the duty of the enforcement officials involved to coordinate their inspections and administrative orders as fully as practicable so that the owners and occupants of the building or structure shall not be subjected to visits by numerous inspectors or multiple or conflicting orders. Whenever an enforcement official observes an apparent or actual violation not within the official's authority, the official shall report the findings to the official having jurisdiction.

R104.5 Identification. The building official shall carry proper identification when inspecting structures or premises in the performance of duties under 780 CMR.

R104.6 Right of Entry. Where it is necessary to make an inspection to enforce the provisions of 780 CMR, or where the building official has reasonable cause to believe that there exists in a structure or upon a premises a condition which is contrary to or in violation of 780 CMR which makes the structure or premises unsafe, dangerous or hazardous, the building official is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by 780 CMR, provided that if such structure or premises be occupied that credentials be presented to the occupant and entry requested. If such structure or premises is unoccupied, the building official shall first make a reasonable effort to locate the owner or other person having charge or control of the structure or premises and request entry. If entry is refused, the building official shall have recourse to the remedies provided by law to secure entry. *See M.G.L. c. 143, §§ 6 and 50.*

R104.7 Department Records. The building official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period required for retention of public records.

R104.8 Liability. All claims of liability relative to building officials shall be governed by M.G.L. c. 258.

R104.9 Approved Materials and Equipment. Materials, equipment and devices approved by the building official shall be constructed and installed in accordance with such approval.

R104.9.1 Used Materials and Equipment. The use of used materials which meet the requirements of 780 CMR for new materials is permitted. Used equipment and devices shall not be reused unless approved by the building official.

R104.10 Modifications. Wherever there are practical difficulties involved in carrying out the provisions of 780 CMR, the building official shall have the authority to grant modifications for individual cases, upon application of the owner or owner's representative, provided the building official shall first find that special individual reason makes the strict letter of 780 CMR impractical and the modification is in compliance with the intent and purpose of 780 CMR and that such modification does not lessen health, accessibility, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the building official.

R104.10.1 Flood Hazard Areas. The building official shall not grant modifications to any provision related to flood hazard areas as established by 780 CMR without the granting of a variance by the Building Code Appeals Board.

51.00: continued

R104.11 Alternative Materials, Design and Methods of Construction and Equipment. The provisions of 780 CMR are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by 780 CMR, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of 780 CMR, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in 780 CMR in quality, strength, effectiveness, fire resistance, durability and safety.

R104.11.1 Research Reports. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in 780 CMR, shall consist of valid research reports from approved sources.

R104.11.2 Tests. Whenever there is insufficient evidence of compliance with the provisions of 780 CMR, or evidence that a material or method does not conform to the requirements of 780 CMR, or in order to substantiate claims for alternative materials or methods, the building official shall have the authority to require tests as evidence of compliance to be made at no expense to the enforcement authority. Test methods shall be as specified in 780 CMR or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of such tests shall be retained by the building official for the period required for retention of public records.

R104.12 Matters Not Provided for. In recognition of the inherent difficulty of drafting a functional code that contemplates every situation that may arise in the area of building safety, this section provides the building official, the Building Code Appeals Board, or the BBRS itself, with reasonable discretion to ensure that all life safety issues that may arise in the enforcement of 780 CMR may be appropriately addressed. Matters not specifically provided for in 780 CMR regarding structural, egress, fire, energy, sanitary or other requirements essential to occupant safety shall be determined by the building official or, in the case of an appeal, the Building Code Appeals Board. The details of action granting modifications shall be recorded and entered in the files of the building official. For highly specialized buildings and structures that conform to unique code requirements or nationally recognized standards not required in 780 CMR, registered design professionals shall provide sufficient information to the building official to support their approval.

SECTION 105 PERMITS

R105.1 Required. It shall be unlawful to construct, reconstruct, alter, repair, remove or demolish a building or structure; or to change the use or occupancy of a building or structure; or to install or alter any equipment for which provision is made or the installation of which is regulated by 780 CMR without first filing an application with the building official and obtaining the required permit.

R105.2 Work Exempt from Permit. Except for activities which may require a permit pursuant to other laws, and the specialized codes of M.G.L. c. 143, § 96, a building permit is not required for the following activities:

1. One-story detached accessory structures, provided that the floor area does not exceed 200 ft² (18.58 m²).
2. Fences not over seven feet (2,134 mm) high.
3. Retaining walls that are not over four feet (1,219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons (18,927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment. Refer to 521 CMR: *Architectural Access Board* for accessibility requirements as applicable.
9. Window awnings supported by an exterior wall that do not project more than 54 inches (1,372 mm) from the exterior wall and do not require additional support.

51.00: continued

10. Decks not exceeding 200 ft² (18.58 m²) in area, that are not more than 30 inches (762 mm) above grade at any point, that are not attached to a dwelling, and that do not serve the exit door required by section R311.4.

11. Greenhouses covered exclusively with plastic film. This exemption does not apply if the greenhouse is to be used for large assemblies of people or uses other than normally expected for this purpose.

R105.2.1 Emergency Repairs. Where replacements and repairs governed by 780 CMR must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the building official.

Note: Pursuant to the terms of the specialized codes of M.G.L. c. 143, § 96, this exemption might not apply to emergency repairs conducted under those specialized codes.

R105.2.2 Repairs. Application or notice to the building official is not required for ordinary repairs to structures. A permit is required for work including but not limited to: the substantial cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or load-bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements or mechanical systems or other work affecting public health or general safety under the authority of 780 CMR.

R105.3 Application for Permit. To obtain a permit, the owner or authorized agent shall file a permit application on a form furnished by the building official for that purpose. Standard application forms, along with application forms that some municipalities use, can be found at <http://www.mass.gov/ocabr/government/oca-agencies/dpl-lp/opsi/>. Such applications shall:

1. Identify and describe the work to be covered by the permit for which application is made.
2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use and occupancy for which the proposed work is intended. If the work involves a care facility or residence licensed by a state agency, indicate the agency name and appropriate licensing regulation on the permit. For example: 115 CMR: *Department of Developmental Services*.
4. Be accompanied by construction documents and other information as required in section 107. Construction documents shall list any additional building features required by a Massachusetts state agency for its facilities that go beyond the requirements in 780 CMR.
5. State the valuation of the proposed work. The building official has authority to request from the applicant a detailed substantiation of the valuation.
6. Be signed by the owner or authorized agent.
7. Give such other data and information as required by the building official in accordance with 780 CMR.
8. If applicable, include the registration number and information of home improvement contractors or subcontractors for residential contracting services, in accordance with M.G.L. c. 142A, §§ 9(a) and 13.

R105.3.1 Action on Application. The building official shall examine or cause to be examined applications for permits and amendments, and shall issue or deny the permit, within 30 days of filing. If the application or the construction documents do not conform to the requirements of 780 CMR and all pertinent laws under the building official's jurisdiction, the building official shall deny such application in writing, stating the reasons therefore. The building official's signature shall be attached to every permit.

The following requirements, where applicable, shall be satisfied before a building permit is issued:

1. Zoning: in accordance with M.G.L. c. 40A or St. 1956, c. 665.
2. Railroad Right-of-way: in accordance with M.G.L. c. 40, § 54A.
3. Water Supply: in accordance with M.G.L. c. 40, § 54.
4. Debris Removal: in accordance with M.G.L. c. 40, § 54.
5. Workers Compensation Insurance: in accordance with M.G.L. c. 152, § 25C(6).

51.00: continued

6. Hazards to Air Navigation: in accordance with M.G.L. c. 90, § 35B.
7. Construction in Coastal Dunes: in accordance with flood construction requirements of 780 CMR.

R105.3.1.1 Determination of Substantially Improved or Substantially Damaged Existing Buildings in Flood Hazard Areas. For applications for reconstruction, rehabilitation, addition, alteration, repair or other improvement of existing buildings or structures located in a flood hazard area as established by section 322.1.1, the building official shall examine or cause to be examined the construction documents and shall make a determination with regard to the value of the proposed work. For buildings that have sustained damage of any origin, the value of the proposed work shall include the cost to repair the building or structure to its pre-damaged condition. If the building official finds that the value of proposed work equals or exceeds 50% of the market value of the building or structure before the damage has occurred or the improvement is started, the proposed work is a substantial improvement or restoration of substantial damage and the building official shall require existing portions of the entire building or structure to meet the requirements of section R322. For the purpose of this determination, a substantial improvement shall mean any repair, reconstruction, rehabilitation, addition or improvement of a building or structure, the cost of which equals or exceeds 50% of the market value of the building or structure before the improvement or repair is started. Where the building or structure has sustained substantial damage, repairs necessary to restore the building or structure to its pre-damaged condition shall be considered substantial improvements regardless of the actual repair work performed. The term shall not include either of the following:

1. Improvements to a building or structure that are required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to ensure safe living conditions.
2. Any alteration of a historic building or structure, provided that the alteration will not preclude the continued designation as a historic building or structure. For the purposes of this exclusion, a historic building shall be any of the following:
 - 2.1. Listed or preliminarily determined to be eligible for listing in the *National Register of Historic Places*.
 - 2.2. Determined by the Secretary of the U.S. Department of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district.
 - 2.3. Designated as historic under a state or local historic preservation program that is approved by the U.S. Department of the Interior.

R105.3.1.1.1 Determination of Substantial Repair of a Foundation. When work to repair or replace a foundation results in the repair or replacement of a portion of the foundation with a perimeter along the base of the foundation that equals or exceeds 50% of the perimeter of the base of the foundation measured in linear feet, or repair or replacement of 50% of the piles, columns or piers of a pile, column or pier supported foundation, the building official shall determine it to be substantial repair of a foundation. Applications determined by the building official to constitute substantial repair of a foundation shall require all existing portions of the entire building or structure to meet the requirements of section R322.

R105.3.2 Time Limitation of Application. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the building official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each. The extension shall be requested in writing and justifiable cause demonstrated.

51.00: continued

R105.4 Validity of Permit. The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of 780 CMR or of any other law or ordinance. Permits presuming to give authority to violate or cancel the provisions of 780 CMR or other laws or ordinances shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the building official from requiring the correction of errors in the construction documents and other data. The building official is also authorized to prevent occupancy or use of a structure where in violation of 780 CMR or of any other laws or ordinances.

R105.5 Expiration. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing prior to the permit expiration date and justifiable cause demonstrated.

R105.6 Suspension or Revocation. The building official is authorized to suspend or revoke a permit issued under the provisions of 780 CMR wherever the permit is issued in error or on the basis of incorrect, inaccurate or incomplete information, or in violation of any ordinance or regulation or any of the provisions of 780 CMR.

R105.7 Placement of Permit. The permit or copy shall be kept on the site of the work until the completion of the project.

R105.8 Notice of Start. The building official may require to be notified at least one business day before the start of work.

R105.9 Reserved

SECTION 106 Reserved

SECTION 107 CONSTRUCTION DOCUMENTS

R107.1 Submittal Documents. Submittal documents consisting of construction documents, and other data shall be submitted in two or more sets with each application for a permit. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional. Plans and specifications for work requiring a registered design professional shall bear a seal and signature of the responsible registered design professional in accordance with M.G.L. c. 143, § 54A. See also www.mass.gov/dpl for policy on electronic seal and signature for certain registered design professionals. Professional engineering services shall be required for activities which are deemed to constitute the practice of engineering as defined in M.G.L. c. 112, § 81D, except as provided in M.G.L. c. 54A and any legally required profession or as provided in M.G.L. c. 112, § 81R. Where work is performed by licensed trades people pursuant to M.G.L. c. 112, § 81R, plans and specifications prepared to document that work shall not be required to bear the seal or signature of a registered design professional.

Exception: The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with 780 CMR.

R107.1.1 Information on Construction Documents. Construction documents shall be drawn upon suitable material. Electronic media documents are permitted to be submitted where approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of 780 CMR and relevant laws, ordinances, rules and regulations, as determined by the building official.

R107.1.2 Manufacturer's Installation Instructions. Manufacturer's installation instructions, as required by 780 CMR, shall be available on the job site at the time of inspection.

51.00: continued

R107.1.3 Information on Braced Wall Design. For buildings and structures utilizing braced wall design, and where required by the building official, braced wall lines shall be identified on the construction documents. Pertinent information including, but not limited to, bracing methods, location and length of braced wall panels and foundation requirements of braced wall panels at top and bottom shall be provided.

R107.1.4 Information for Construction in Flood Hazard Areas. For buildings and structures located in whole or in part in flood hazard areas as established by Table R301.2(1), construction documents shall include:

1. Delineation of flood hazard areas, floodway boundaries and flood zones and the design flood elevation, as appropriate.
2. The elevation of the proposed lowest floor, including basement; in areas of shallow flooding (AO Zones), the height of the proposed lowest floor, including basement, above the highest adjacent grade.
3. The elevation of the bottom of the lowest horizontal structural member in coastal high hazard areas (V Zone).
4. If design flood elevations are not included on the community's Flood Insurance Rate Map ("FIRM"), the building official and the applicant shall obtain and reasonably utilize any design flood elevation and floodway data available from other sources.

R107.1.5 Manufactured Buildings and Modular Homes. Document submittal shall be as follows:

1. Site specific plans and specifications.
2. Plan Identification Number Assignment Form with BBRS number. This is to confirm plans have been approved by the Office and shall include a stamp approval and signature.
3. Plans shall be stamped on every page by a third party inspection agency.
4. Every page showing calculations by a registered design professional shall be provided with their stamp and signature.
5. Energy compliance certificate.
6. Set manuals are required to be on site at time of project set and shall be specific to the project.

Exception: If all connection details are provided on the plans then the set manual is not required.

7. Set crew information shall accompany the plan submittal package with approved certification from manufacturer.

R107.1.6 Townhouse Buildings Greater Than 35,000 ft.³. Such buildings require registered design professional services in accordance with 780 CMR 107.6: *Construction Control*.

R107.2 Site Plan or Plot Plan. The construction documents submitted with the application for permit shall be accompanied by a site plan showing the size and location of new construction and existing structures on the site and distances from lot lines. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The building official is authorized to waive or modify the requirement for a site plan where the application for permit is for alteration or repair or where otherwise warranted.

R107.3 Examination of Documents. The building official shall examine or cause to be examined construction documents for code compliance.

R107.3.1 Approval of Construction Documents. Where the building official issues a permit, the construction documents shall be approved in writing or by a stamp that states "REVIEWED FOR CODE COMPLIANCE." One set of construction documents so reviewed shall be retained by the building official, and one set shall be returned to the applicant, shall be kept at the site of work, and shall be open to inspection by the building official or a duly authorized representative. If the construction documents contain fire protection and/or detection requirements one set will be required for fire department review.

51.00: continued

R107.3.2 Previous Approvals. 780 CMR shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of 780 CMR and has not been abandoned.

R107.3.3 Phased Approval. The building official is authorized to issue a permit for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of 780 CMR. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder's own risk with the building operation and without assurance that a permit for the entire structure will be granted.

R107.3.4 Fire Department Review. For permits that include fire protection systems work, construction documents shall be filed with the building official who shall cause them to be filed with the head of the local fire department for review. The fire department shall have ten working days after receiving the documents to complete its review. Upon the fire department's written request, the building official may grant one or more extensions up to a total review period maximum of 30 days. If the fire department review is not received within the allowed time frame, the building official may upon review deem the documents in compliance with 780 CMR. If the head of the local fire department believes such construction documents to be noncompliant with 780 CMR or reference standards, he or she shall notify the building official in writing citing relevant sections of noncompliance with 780 CMR or the section of the referenced standards. *See M.G.L. c. 148, § 28A.*

R107.4 Amended Construction Documents. Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

R107.5 Retention of Construction Documents. One set of approved construction documents shall be retained by the building official in accordance with M.G.L. c. 66, § 8.

SECTION 108 TEMPORARY STRUCTURES AND USES

R108.1 General. The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The building official is authorized to grant extensions for demonstrated cause. *See 780 CMR 31.00: Special Construction.*

R108.2 Conformance. Temporary structures and uses shall conform to the structural strength, fire safety, means of egress, accessibility, light, ventilation and sanitary requirements of 780 CMR as necessary to ensure public health, safety and general welfare.

R108.3 Fire Department Review. Temporary structures and uses shall be approved by the building official in consultation with the head of the local fire department.

R108.4 Termination of Approval. The building official is authorized to terminate for cause and with written notice such permit for a temporary structure or use and to order the temporary structure or use to be discontinued.

R108.5 State of Emergency. Upon declaration by the governor of a state of emergency under St. 1950, c. 639, or of an emergency detrimental to the public health under M.G.L. c. 17, § 2A, a building or space within a building may be used as a temporary emergency use for purposes of housing and/or caring for persons in accordance with procedures established for such purpose as contained in 780 CMR 31.00: *Special Construction.*

SECTION 109 FEES

R109.1 Payment of Fees. A permit shall not be valid until the fees prescribed by law have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid in the amount established by the applicable governing authority.

51.00: continued

R109.2 Schedule of Permit Fees. For state building permit fees, *see* 801 CMR 4.02: *Fees for Licenses, Permits, and Services to be Charged by State Agencies*. For municipal building permit fees, refer to the municipality.

R109.3 Building Permit Valuations. The applicant for a permit shall provide an estimated value of project cost at time of application. If, in the opinion of the building official, the valuation is underestimated on the application, the permit shall be denied, unless the applicant can show detailed estimates to meet the approval of the building official. Final building permit valuation shall be set by the building official.

R109.4 Work Commencing Before Building Permit Issued. Any person who commences any work on a building or structure governed by 780 CMR before obtaining the necessary building permit shall be in violation of 780 CMR and subject to penalties. *See* section 114.

Exception: Emergency repairs as found in section 105.2.1.

R109.5 Related Fees. Payment of the building permit fee shall not relieve the applicant or holder of the permit from the payment of other fees that are prescribed by law.

SECTION 110 INSPECTIONS

R110.1 General. Construction or work for which a permit is required shall be subject to inspection by the building official and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of 780 CMR or of other laws or ordinances. Inspections presuming to give authority to violate or cancel the provisions of 780 CMR or of other laws or ordinances shall not be valid. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes and that all work shall be conducted, installed, protected and completed in a workmanlike and acceptable manner so as to secure the results intended by 780 CMR. Neither the building official nor the applicable enforcement authority shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

R110.2 Preliminary Inspection. Before issuing a permit, the building official is authorized to examine or cause to be examined buildings, structures and sites for which an application has been filed.

R110.3 Required Inspections. The building official shall conduct inspections during construction at intervals sufficient to ensure compliance with the provisions of 780 CMR which may include inspections set forth in sections 110.3.1 through 110.3.10. The building official shall inform the applicant of the required points of inspection at the time of permit issuance. The building official may designate specific inspection points in the course of construction that require the contractor or builder to give the building official one business day notice prior to the time when those inspections need to be performed. The building official shall make the inspections within two business days after notification.

R110.3.1 Foundation Inspection. Inspection of the foundation shall be made after poles or piers are set or trenches or basement areas are excavated and any required forms erected and any required reinforcing steel is in place and supported prior to the placing of concrete. The foundation inspection shall include excavations for thickened slabs intended for the support of bearing walls, partitions, structural supports, or equipment and special requirements for wood foundations.

R110.3.2 Plumbing, Mechanical, Gas and Electrical Systems Inspection. Rough inspection of plumbing, mechanical, gas and electrical systems shall be made prior to covering or concealment, before fixtures or appliances are set or installed, and prior to framing inspection.

Exception: Backfilling of ground-source heat pump loop systems tested in accordance with section M2105.1 prior to inspection shall be permitted.

51.00: continued

R110.3.3 Floodplain Inspections. For construction in flood hazard areas as established by Table R301.2(1), upon placement of the lowest floor, including basement, and prior to further vertical construction, the building official shall require submission of documentation, prepared and sealed by a registered design professional, of the elevation of the lowest floor, including basement, required in section R322.

R110.3.4 Frame and Masonry Inspection. Inspection of framing and masonry construction shall be made after the roof, masonry, framing, firestopping, draftstopping and bracing are in place and after the plumbing, mechanical and electrical rough inspections are approved.

R110.3.5 Other Inspections. In addition to inspections in sections 110.3.1 through 110.3.4, the building official shall have the authority to make or require any other inspections to ascertain compliance with 780 CMR and other laws enforced by the building official.

R110.3.5.1 Fire-resistance-rated Construction Inspection. Where fire-resistance-rated construction is required between dwelling units or due to location on property, the building official shall require an inspection of such construction after lathing or gypsum board or gypsum panel products are in place, but before any plaster is applied, or before board or panel joints and fasteners are taped and finished.

R110.3.6 Final Inspection. Final inspection shall be made after the permitted work is complete and prior to occupancy.

R110.3.6.1 Elevation Documentation. If located in a flood hazard area, the documentation of elevations required in section R322.1.10 shall be submitted to the building official prior to the final inspection.

R110.4 Inspection Agencies. The building official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

R110.5 Inspection Requests. It shall be the duty of the holder of the building permit or their duly authorized agent to notify the building official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by 780 CMR. The building official may require the permit holder or his or her representative or the licensed construction supervisor to attend these inspections.

R110.6 Approval Required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with 780 CMR. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the building official.

SECTION 111 CERTIFICATE OF OCCUPANCY

R111.1 Use and Occupancy. No building or structure shall be used or occupied, and no change in the existing occupancy classification of a building or structure or portion thereof shall be made until the building commissioner, inspector of buildings, or when applicable, the state inspector, has issued a certificate of occupancy therefore as provided herein. Issuance of a certificate of occupancy shall not be construed as an approval of a violation of the provisions of 780 CMR or of other laws or ordinances. Conformance to all applicable specialized codes of M.G.L. c. 143, § 96, and submittal of a certificate of compliance for Title V, if applicable in accordance with 310 CMR 15.00: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage*, are requirements of the issuance of the certificate of use and occupancy.

Exception: Certificates of occupancy are not required for work exempt from permits under section 105.2 or for alterations which do not require a change to the occupancy.

51.00: continued

R111.1.1 Buildings or Structures Hereafter Altered. A building or structure, in whole or in part, altered to change from one use group to another, to a different use within the same use group, the maximum live load capacity, or the occupancy load capacity shall not be occupied or used until the certificate shall have been issued certifying that the work has been completed in accordance with the provisions of the approved permits and of the applicable codes for which permit is required.

R111.1.2 Massachusetts Licensed Care Facilities. Certificate of occupancy inspections for Massachusetts licensed care facilities, including inspection of special building features required by the licensing agency, shall be limited to verifying compliance with the provisions of 780 CMR.

R111.2 Certificate Issued. After the building official inspects the building or structure and finds no violations of the provisions of 780 CMR or other laws that are enforced by the building official, the building official/inspector of buildings or state building inspector shall issue a certificate of occupancy that contains the following:

1. The building permit number.
2. The address of the structure.
3. (Reserved).
4. A description of that portion of the structure for which the certificate is issued.
5. A statement that the described portion of the structure has been inspected for compliance with the requirements of 780 CMR for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.
6. The name of the building commissioner or inspector of buildings or state inspector.
7. The edition of the code under which the permit was issued.
8. If an automatic sprinkler system is provided, whether the sprinkler system is required.
9. Any special stipulations and conditions of the building permit.
10. If the facility is licensed by a state agency, the name of the agency and the name and number of any relevant Code of Massachusetts Regulations that apply regarding building features.

R111.3 Temporary Occupancy. The building official is authorized to issue a temporary certificate of occupancy before the completion of the entire work covered by the permit, provided that such portion or portions shall be occupied safely. The building official shall set a time period, not to exceed 180 days, during which the temporary certificate of occupancy is valid. Upon written request from the permit holder, the building official may extend the temporary occupancy permit for additional 30 day periods or a period at the discretion of the building official.

R111.4 Revocation. The building official is authorized to, in writing, suspend or revoke a certificate of occupancy or completion issued under the provisions of 780 CMR wherever the certificate is issued in error, or on the basis of incorrect information supplied, or where it is determined that the building or structure or portion thereof is in violation of any ordinance or regulation or any of the provisions of 780 CMR.

SECTION 112 SERVICE UTILITIES Reserved

SECTION 113 APPEALS

R113.1 General. Appeals of orders, decisions, determinations and failures to act made by any state or local agency or any person or state or local agency charged with the administration or enforcement of the state building code or any of its rules and regulations, except the specialized codes of M.G.L. c. 143, § 96, relative to the application and interpretation of 780 CMR shall be addressed by the Building Code Appeals Board in accordance with M.G.L. c. 143, § 100. An application to file an appeal may be found at <http://www.mass.gov/ocabr/government/oca-agencies/dpl-lp/opsi/>.

R113.2 Limitations on Authority. Reserved

R113.3 Qualifications. Reserved

51.00: continued

R113.4 Local and Regional Boards of Appeals. If a city, region or town had not duly established by ordinance or bylaw or otherwise a local or regional building code board of appeals prior to January 1, 1975, said city, region or town may establish a local or regional board of appeals in accordance with section 113, referred to as the local board of appeals, consisting of not less than three nor more than five members appointed by the chief administrative officer of the city, region or town. Any appeal originating in a city or town that has a local board shall be heard by the local board before being heard by the state Building Code Appeals Board.

R113.4.1 Review. Any person, including the Building Code Appeals Board, aggrieved by a decision of the local board of appeals whether or not a previous party to the decision, or any municipal officer or official board of the municipality, may, not later than 45 days after the mailing of the decision of the local board, apply to the Building Code Appeals Board for a hearing *de novo* in accordance with section 113. All local appeal decisions are to be reviewed by the BBRS and are to be summarized in a manner acceptable to the BBRS. Forms and other information pertaining to this review process are found at <http://www.mass.gov/ocabr/government/oca-agencies/dpl-lp/opsi/>.

R113.4.2 Qualifications of Local Board Members. Each member of a local board of appeals established under M.G.L. c. 143, § 100 shall have had at least five years experience in the construction, alteration, repair and maintenance of building and building codes. At least one member shall be a registered structural or civil professional engineer and one member a licensed registered architect.

R113.4.3 Chairman of Local or Regional Board. The board shall select one of its members to serve as chairman and a detailed record of all proceedings shall be kept on file in the building department.

R113.4.4 Absence of Members. During the absence of a member of a local board of appeals for reason of disability or disqualification, the chief administrative officer of the city, region or town shall designate a substitute who shall meet the qualifications as outlined in section 113.

SECTION 114 VIOLATIONS

R114.1 Unlawful Acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish, occupy or change the use or occupancy of any building, structure or equipment regulated by 780 CMR, or cause same to be done, in conflict with or in violation of any of the provisions of 780 CMR.

R114.2 Notice of Violation. The building official is authorized to serve a notice of violation or order on the person responsible for the erection, construction, alteration, extension, repair, moving, removal, demolition or occupancy of a building or structure in violation of the provisions of 780 CMR, or in violation of a permit or certificate issued under the provisions of 780 CMR. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

R114.2.1 Notice Service and Content. Every notice or order authorized pursuant to section 114.2 shall be in writing and shall be served on the person responsible:

1. Personally, by any person authorized by the building official;
2. By any person authorized to serve civil process by leaving a copy of the order or notice at the responsible party's last and usual place of business or abode;
3. By sending the party responsible or his or her agent authorized to accept service of process in the Commonwealth a copy of the order by registered or certified mail return receipt requested, if he or she is within the Commonwealth; or
4. If the responsible party's last and usual place of business or abode is unknown, by posting a copy of this order or notice in a conspicuous place on or about the premises in violation and by publishing it for at least three out of five consecutive days in one or more newspapers of general circulation wherein the building or premises affected is situated.

R114.3 Enforcement. Violations to 780 CMR shall be enforced in accordance with the applicable provisions of M.G.L. c. 143, M.G.L. c. 148, and M.G.L. c. 148A.

51.00: continued

R114.4 Violation Penalties. Any person who violates a provision of 780 CMR or fails to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure, or makes a change of use in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of 780 CMR, shall be subject to penalties as prescribed by M.G.L. c. 143, § 94(a).

SECTION 115 STOP WORK ORDER

R115.1 Authority. Whenever the building official finds any work regulated by 780 CMR being performed in a manner either contrary to the provisions of 780 CMR or dangerous or unsafe, the building official is authorized to issue a stop work order.

R115.2 Issuance. The initial stop work order may be verbal, but shall be issued in writing within 48 hours and shall cite the time and date of the verbal order and be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.

R115.3 Unlawful Continuance. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by M.G.L. c. 143, § 94(a). Each day during which a violation exists shall constitute a separate offense.

SECTION 116 UNSAFE STRUCTURES AND EQUIPMENT

R116.1 General. The provisions of this section are established by and work in conjunction with the requirements of M.G.L. c. 143, §§ 6 through 12.

R116.2 Standards for Making Buildings Safe or Secure. Any owner of a building who has been notified that said building shall be made safe or secure under section 116, shall:

1. Remove all materials determined by the head of the fire department or building official to be dangerous in case of fire.
2. Secure all floors accessible from grade utilizing one of the following methods so long as such method is approved by the head of the fire department and building official in writing:
 - a. Secure all window and door openings in accordance with the U.S. Fire Administration, National Arson Prevention Initiative Board Up Procedures found here: <http://www.interfire.org/pdf/USFA%20Board%20Up.pdf> continuously until such time as the building is reoccupied;
 - b. Provide 24 hour watchman services, continuously until such time as the building is reoccupied; or
 - c. Provide a monitored intruder alarm system at the perimeter of all floors accessible from grade, continuously until such time as the building is reoccupied.

Said owner, as the case may be, shall notify the building official that the approved method chosen to secure the building has been incorporated. Said owner shall allow the building official to enter the building for an inspection to ascertain that the building is secured and made safe. Said owner shall allow the head of the fire department to enter the building. The building official shall be supplied with records of maintenance and operation if the provisions of section 116.2 items 2b. or 2c. are used.

3. Maintain any existing fire alarms or sprinkler systems unless written permission is obtained from the head of the fire department in accordance with M.G.L. c. 148, § 27A to shut off or disconnect said alarms or systems.
4. Maintain utilities unless written permission is obtained from the building official to disconnect said utilities. Permission to disconnect utilities shall not be granted if it will result in inadequate heat to prevent freezing of an automatic sprinkler system or inadequate utilities to maintain any other protection systems.
5. The requirements of section 116.2 items 1. through 4. do not prevent a building official from ordering or taking expeditious, temporary security measures in emergency situations pending the completion of the requirements of section 116.2 items 1. through 4.

For the purposes of section R116, an "emergency situation" shall be defined as: an unexpected incident, which by its very nature may present a threat to public safety personnel who may be required to affect a rescue effort or conduct fire extinguishment operations.

51.00: continued

Upon refusal or neglect of said owner to comply with such notice, any building official acting under the authority of M.G.L. c. 143, §§ 6 through 12, shall enforce section R116.2 item 2a. or other equivalent procedure approved by the head of the fire department, continuously until such time as the building is reoccupied.

Any building which has been made to conform to the provisions of section 116.2 during vacancy may be reoccupied under its last permitted use and occupancy classification, provided that any systems which were disconnected or shut down during the period of vacancy are restored to fully functional condition and subject to section 105 and M.G.L. c. 40A. The local building official shall be notified in writing prior to reoccupancy. If said building is changed in use or occupancy or otherwise renovated or altered, it shall be subject to the applicable provisions of 780 CMR 34.00: *Existing Building Code*.

116.3 Marking or Identifying Certain Buildings That Are Especially Unsafe in the Case of Fire. Any building official who determines that a building is especially unsafe in case of fire under section 116 shall notify the head of the fire department about the existence of said building. The building official, in cooperation with the head of the fire department, shall cause said building to be marked in accordance with the marking requirements in 527 CMR 10.00: *Fire Prevention, General Provisions*.

Chapter 2: DEFINITIONS

R202 Add and/or revise definitions to read as follows:

BASIC WIND SPEED. Three-second gust speed at 33 feet (10,058 mm) above the ground in Exposure C (see section R301.2.1) as given in Table R301.2(4).

BUILDING OFFICIAL. The building commissioner/inspector of buildings, local inspector or state building inspector charged with the administration and enforcement of 780 CMR in accordance with M.G.L. c. 143, §§ 3 and 3A.

COASTAL DUNE. A coastal wetland resource area subject to the construction requirements of section R322.4.

COASTAL WETLAND RESOURCE AREA. Any coastal wetland resource area subject to protection under the Wetlands Protection Act, M.G.L. c. 131, § 40, and the Wetlands Protection Act Regulations, 310 CMR 10.21 through 10.35. Coastal wetland resource areas include barrier beaches, coastal beaches, coastal dunes, rocky intertidal shores, tidal flats, land subject to 100 year coastal storm flowage, coastal banks, land containing shellfish, lands subject to tidal action, and lands under an estuary, salt pond or certain streams, ponds, rivers, lakes or creeks within the coastal zone that are anadromous/catadromous fish runs. Coastal wetland resources are shown on a map entitled "Map of Coastal Wetland Resources For Building Officials". Once a coastal wetland resource is identified, coastal dunes within that resource are delineated in accordance with guidance provided on the map.

ELECTRIC VEHICLE SERVICE EQUIPMENT (EVSE) Level -2 (220 - 240V). Equipment expressly designed for the safe charging of battery electric and plug-in hybrid electric vehicles.

JURISDICTION. The Board of Building Regulations and Standards.

LODGING HOUSE. A one-family dwelling with five or fewer guest rooms where one or more occupants are primarily permanent in nature and compensation is provided for the guest rooms. A building licensed as a "lodging house" in accordance with M.G.L. c. 140, §§ 22 through 31 shall comply with 780 CMR requirements according to its appropriate use and occupancy classification.

CHAPTER 2 - DEFINITIONS - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

Upon refusal or neglect of said owner to comply with such notice, any building official acting under the authority of M.G.L. c. 143, §§ 6 through 12, shall enforce section R116.2 item 2a. or other equivalent procedure approved by the head of the fire department, continuously until such time as the building is reoccupied.

Any building which has been made to conform to the provisions of section 116.2 during vacancy may be reoccupied under its last permitted use and occupancy classification, provided that any systems which were disconnected or shut down during the period of vacancy are restored to fully functional condition and subject to section 105 and M.G.L. c. 40A. The local building official shall be notified in writing prior to reoccupancy. If said building is changed in use or occupancy or otherwise renovated or altered, it shall be subject to the applicable provisions of 780 CMR 34.00: *Existing Building Code*.

116.3 Marking or Identifying Certain Buildings That Are Especially Unsafe in the Case of Fire. Any building official who determines that a building is especially unsafe in case of fire under section 116 shall notify the head of the fire department about the existence of said building. The building official, in cooperation with the head of the fire department, shall cause said building to be marked in accordance with the marking requirements in 527 CMR 10.00: *Fire Prevention, General Provisions*.

Chapter 2: DEFINITIONS

R202 Add and/or revise definitions to read as follows:

BASIC WIND SPEED. Three-second gust speed at 33 feet (10,058 mm) above the ground in Exposure C (see section R301.2.1) as given in Table R301.2(4).

BUILDING OFFICIAL. The building commissioner/inspector of buildings, local inspector or state building inspector charged with the administration and enforcement of 780 CMR in accordance with M.G.L. c. 143, §§ 3 and 3A.

COASTAL DUNE. A coastal wetland resource area subject to the construction requirements of section R322.4.

COASTAL WETLAND RESOURCE AREA. Any coastal wetland resource area subject to protection under the Wetlands Protection Act, M.G.L. c. 131, § 40, and the Wetlands Protection Act Regulations, 310 CMR 10.21 through 10.35. Coastal wetland resource areas include barrier beaches, coastal beaches, coastal dunes, rocky intertidal shores, tidal flats, land subject to 100 year coastal storm flowage, coastal banks, land containing shellfish, lands subject to tidal action, and lands under an estuary, salt pond or certain streams, ponds, rivers, lakes or creeks within the coastal zone that are anadromous/catadromous fish runs. Coastal wetland resources are shown on a map entitled "Map of Coastal Wetland Resources For Building Officials". Once a coastal wetland resource is identified, coastal dunes within that resource are delineated in accordance with guidance provided on the map.

ELECTRIC VEHICLE SERVICE EQUIPMENT (EVSE) Level -2 (220 - 240V). Equipment expressly designed for the safe charging of battery electric and plug-in hybrid electric vehicles.

JURISDICTION. The Board of Building Regulations and Standards.

LODGING HOUSE. A one-family dwelling with five or fewer guest rooms where one or more occupants are primarily permanent in nature and compensation is provided for the guest rooms. A building licensed as a "lodging house" in accordance with M.G.L. c. 140, §§ 22 through 31 shall comply with 780 CMR requirements according to its appropriate use and occupancy classification.

51.00: continued

NATIVE LUMBER. Native lumber is wood processed in the Commonwealth of Massachusetts by a mill registered in accordance with 780 CMR 110.R4: *Registration of Native Lumber Producers*. Such wood is ungraded but is stamped or certified in accordance with the requirements of 780 CMR 110.R4. For the purpose of this definition, native lumber shall be restricted to the use in one- and two-story dwellings, barns, sheds, agricultural and accessory buildings and other structures when permitted by 780 CMR 110.R4.

OFFICIAL INTERPRETATION. A written interpretation made by the BBRS, under authority of M.G.L. c. 143, § 94(e), or by the Building Code Appeals Board under authority of M.G.L. c. 143, § 100, of any provision of 780 CMR, or its referenced standards, except the specialized codes.

REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the Commonwealth.

SPECIALIZED CODES. Codes, rules or regulations pertaining to building construction, reconstruction, alteration, repair or demolition promulgated by and under the authority of various boards authorized by the general court. *See* M.G.L. c. 143, § 96.

STATE BUILDING INSPECTOR. An "inspector" as described in M.G.L. c. 143, § 3A.

WINDBORNE DEBRIS REGION. Areas within hurricane-prone regions located in accordance with one of the following:

1. Within one mile (1.61 km) of the coastal mean high water line where the nominal design wind speed, V_{asd} , is 130 mph (58 m/s) or greater.
2. In areas where the nominal design wind speed, V_{asd} , is 140 mph (63.6 m/s) or greater.

Note: Values of V_{ult} are found in Table R301.2(4). To convert V_{ult} to V_{asd} , refer to Table R301.2.1.3.

Chapter 3: BUILDING PLANNING

R301.1.1 Add item 4 below item 3 as follows:

4. American Forest and Paper Association ("AF&PA") *Prescriptive Residential Wood Deck Construction Guide* (DCA6).

R301.1.4 Add subsection as follows:

R301.1.4 Townhouse Buildings Greater than 35,000 ft³. Such buildings shall require registered design professional services in accordance with section 107.6 Construction Control.

R301.2 Revise section, and add Table R301.2(1) as follows:

R301.2 Climatic and Geographic Design Criteria. Buildings shall be constructed in accordance with the provisions of 780 CMR 51.00 as limited by the provisions of this section. *See* Table R301.2(1).

CHAPTER 3 – BUILDING PLANNING - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following 2015 *International Codes as published by the International Code Council (ICC)*.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

NATIVE LUMBER. Native lumber is wood processed in the Commonwealth of Massachusetts by a mill registered in accordance with 780 CMR 110.R4: *Registration of Native Lumber Producers*. Such wood is ungraded but is stamped or certified in accordance with the requirements of 780 CMR 110.R4. For the purpose of this definition, native lumber shall be restricted to the use in one- and two-story dwellings, barns, sheds, agricultural and accessory buildings and other structures when permitted by 780 CMR 110.R4.

OFFICIAL INTERPRETATION. A written interpretation made by the BBRS, under authority of M.G.L. c. 143, § 94(e), or by the Building Code Appeals Board under authority of M.G.L. c. 143, § 100, of any provision of 780 CMR, or its referenced standards, except the specialized codes.

REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the Commonwealth.

SPECIALIZED CODES. Codes, rules or regulations pertaining to building construction, reconstruction, alteration, repair or demolition promulgated by and under the authority of various boards authorized by the general court. See M.G.L. c. 143, § 96.

STATE BUILDING INSPECTOR. An "inspector" as described in M.G.L. c. 143, § 3A.

WINDBORNE DEBRIS REGION. Areas within hurricane-prone regions located in accordance with one of the following:

1. Within one mile (1.61 km) of the coastal mean high water line where the nominal design wind speed, V_{asd} , is 130 mph (58 m/s) or greater.
2. In areas where the nominal design wind speed, V_{asd} , is 140 mph (63.6 m/s) or greater.

Note: Values of V_{ult} are found in Table R301.2(4). To convert V_{ult} to V_{asd} , refer to Table R301.2.1.3.

Chapter 3: BUILDING PLANNING

R301.1.1 Add item 4 below item 3 as follows:

4. American Forest and Paper Association ("AF&PA") *Prescriptive Residential Wood Deck Construction Guide* (DCA6).

R301.1.4 Add subsection as follows:

R301.1.4 **Townhouse Buildings Greater than 35,000 ft³.** Such buildings shall require registered design professional services in accordance with section 107.6 Construction Control.

R301.2 Revise section, and add Table R301.2(1) as follows:

R301.2 **Climatic and Geographic Design Criteria.** Buildings shall be constructed in accordance with the provisions of 780 CMR 51.00 as limited by the provisions of this section. See Table R301.2(1).

51.00: continued

Table R301.2(1) Climatic and Geographic Design Criteria

Ground Snow Load		Table R301.2(4)
Wind Design	Speed	Table R301.2(4)
	Topographic effects	No
	Special Wind Regions	No
	Windborne debris zone	Any area within a windborne debris region, as defined in Chapter 2 of 780 CMR 51.00
Seismic Design Category		No
Subject to Damage From	Weathering	Severe
	Frost line depth	48 inches. For shallow foundations, see R403.3(2).
	Termite	See Figure R301.2(6).
Winter Design Temperature		Dry bulb
Ice Barrier Underlayment Required		For roofing, see R905.2.7.
Flood Hazards		See section 322.
Air Freezing Index		For shallow foundations, see R403.3(2).
Mean Annual Temperature		See https://www.ncdc.noaa.gov/sotc/global/201607

R301.2.1.1 Revise subsection as follows:

R301.2.1.1 Wind Limitations and Wind Design Required. The wind provisions of 780 CMR 51.00 shall not apply to the design of buildings where the ultimate wind speed, V_{ult} is 140 mph or greater. See Table R301.2(4) for wind speeds by city or town.

Exceptions:

1. For concrete construction, the wind provisions of 780 CMR 51.00 shall apply in accordance with the limitations of sections R404 and R608.
2. For structural insulated panels, the wind provisions of 780 CMR 51.00 shall apply in accordance with the limitations of section R610.
3. For cold-formed steel light-frame construction, the wind provisions of 780 CMR 51.00 shall apply in accordance with the limitations of sections R505, R603 and R804.

In regions where wind design is required, the design of buildings for wind loads shall be in accordance with one or more of the following methods:

1. AF&PA *Wood Frame Construction Manual* ("WFCM") or its *Guide to Wood Construction in High Wind Areas for One- and Two-Family Dwellings*, 110 mph Exposure B. A Commonwealth of Massachusetts version of the checklist can be used in place of the checklist at the end of the guide and is found at <http://www.mass.gov/ocabr/government/oca-agencies/dpl-lp/opsi/>.
2. ICC *Standard for Residential Construction in High-Wind Regions* (ICC 600).
3. ASCE *Minimum Design Loads for Buildings and Other Structures* (ASCE 7).
4. AISI *Standard for Cold-Formed Steel Framing—Prescriptive Method For One- and Two-Family Dwellings* (AISI S230).
5. *International Building Code*.

The elements of design not addressed by the methods in section R301.2.1.1 1. through 5. shall be in accordance with the provisions of 780 CMR.

Where ASCE 7 or the *International Building Code* is used for the design of the building, the wind speed map and exposure category requirements as specified in ASCE 7 and the *International Building Code* shall be used.

51.00: continued

NATIVE LUMBER. Native lumber is wood processed in the Commonwealth of Massachusetts by a mill registered in accordance with 780 CMR 110.R4: *Registration of Native Lumber Producers*. Such wood is ungraded but is stamped or certified in accordance with the requirements of 780 CMR 110.R4. For the purpose of this definition, native lumber shall be restricted to the use in one- and two-story dwellings, barns, sheds, agricultural and accessory buildings and other structures when permitted by 780 CMR 110.R4.

OFFICIAL INTERPRETATION. A written interpretation made by the BBRs, under authority of M.G.L. c. 143, § 94(e), or by the Building Code Appeals Board under authority of M.G.L. c. 143, § 100, of any provision of 780 CMR, or its referenced standards, except the specialized codes.

REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the Commonwealth.

SPECIALIZED CODES. Codes, rules or regulations pertaining to building construction, reconstruction, alteration, repair or demolition promulgated by and under the authority of various boards authorized by the general court. See M.G.L. c. 143, § 96.

STATE BUILDING INSPECTOR. An "inspector" as described in M.G.L. c. 143, § 3A.

WINDBORNE DEBRIS REGION. Areas within hurricane-prone regions located in accordance with one of the following:

1. Within one mile (1.61 km) of the coastal mean high water line where the nominal design wind speed, V_{asd} , is 130 mph (58 m/s) or greater.
2. In areas where the nominal design wind speed, V_{asd} , is 140 mph (63.6 m/s) or greater.

Note: Values of V_{ult} are found in Table R301.2(4). To convert V_{ult} to V_{asd} , refer to Table R301.2.1.3.

Chapter 3: BUILDING PLANNING

R301.1.1 Add item 4 below item 3 as follows:

4. American Forest and Paper Association ("AF&PA") *Prescriptive Residential Wood Deck Construction Guide* (DCA6).

R301.1.4 Add subsection as follows:

R301.1.4 Townhouse Buildings Greater than 35,000 ft³. Such buildings shall require registered design professional services in accordance with section 107.6 Construction Control.

R301.2 Revise section, and add Table R301.2(1) as follows:

R301.2 Climatic and Geographic Design Criteria. Buildings shall be constructed in accordance with the provisions of 780 CMR 51.00 as limited by the provisions of this section. See Table R301.2(1).

51.00: continued

Table R301.2(4) Add table as follows:

TABLE R301.2(4) SNOW LOADS AND WIND SPEEDS

City/Town	SNOW LOADS		Basic Wind Speed, V_{wt} (mph)
	Ground Snow Load, P_g (psf)	Minimum Flat Roof Snow Load, P_f^1 (psf)	
Abington	35	30	132
Acton	50	35	124
Acushnet	30	30	138
Adams ²	60	40	115
Agawam	35	35	120
Alford ²	40	40	115
Amesbury	50	30	123
Amherst	40	35	118
Andover	50	30	124
Aquinnah (Gay Head)	25	25	140
Arlington	40	30	127
Ashburnham	60	35	118
Ashby	60	35	119
Ashfield	50	40	115
Ashland	40	35	127
Athol	60	35	117
Attleboro	35	30	132
Auburn	50	35	125
Avon	35	35	131
Ayer	50	35	122
Barnstable	30	25	140
Barre	50	35	120
Becket ²	60	40	115
Bedford	50	30	125
Belchertown	40	35	119
Bellingham	40	35	129
Belmont	40	30	127
Berkley	30	30	135
Berlin	50	35	124
Bernardston	60	35	115
Beverly	50	30	127
Billerica	50	30	124
Blackstone	40	35	129
Blandford	50	40	116
Bolton	50	35	123
Boston	40	30	128
Bourne	30	25	139
Boxborough	50	35	123
Boxford	50	30	125
Boylston	50	35	123

51.00: continued

TABLE R301.2(4) SNOW LOADS AND WIND SPEEDS - continued

City/Town	SNOW LOADS		Basic Wind Speed, V_{nt} (mph)
	Ground Snow Load, P_g (psf)	Minimum Flat Roof Snow Load, P_r^1 (psf)	
Braintree	35	30	131
Brewster	25	25	140
Bridgewater	30	30	134
Brimfield	40	35	123
Brockton	35	30	132
Brookfield	50	35	122
Brookline	40	30	128
Buckland ²	60	40	115
Burlington	50	30	125
Cambridge	40	30	128
Canton	40	35	130
Carlisle	50	30	124
Carver	30	30	136
Charlemont ²	60	40	115
Charlton	50	35	124
Chatham	25	25	140
Chelmsford	50	30	123
Chelsea	40	30	128
Cheshire ²	60	40	115
Chester	60	40	115
Chesterfield	50	40	115
Chicopee	35	35	119
Chilmark	25	25	140
Clarksburg ²	60	40	115
Clinton	50	35	123
Cohasset	35	30	131
Colrain ²	60	40	115
Concord	50	35	125
Conway	50	40	115
Cummington ²	60	40	115
Dalton ²	60	40	115
Danvers	50	30	126
Dartmouth	30	30	139
Dedham	40	35	129
Deerfield	50	35	115
Dennis	30	25	140
Dighton	30	30	135
Douglas	40	35	127
Dover	40	35	128
Dracut	50	30	122
Dudley	50	35	126
Dunstable	50	35	121
Duxbury	30	30	135

51.00: continued

TABLE R301.2(4) SNOW LOADS AND WIND SPEEDS - continued

City/Town	SNOW LOADS		Basic Wind Speed, V_{ult} (mph)
	Ground Snow Load, P_g (psf)	Minimum Flat Roof Snow Load, P_f^1 (psf)	
E. Bridgewater	35	30	133
E. Brookfield	50	35	122
E. Longmeadow	35	35	121
Eastham	25	25	140
Easthampton	40	35	117
Easton	35	30	132
Edgartown	25	25	140
Egremont ²	40	40	115
Erving	50	35	116
Essex	50	30	127
Everett	40	30	128
Fairhaven	30	30	139
Fall River	30	30	137
Falmouth	30	25	140
Fitchburg	60	35	120
Florida ²	60	40	115
Foxborough	35	35	131
Framingham	40	35	127
Franklin	40	35	129
Freetown	30	30	137
Gardner	60	35	119
Georgetown	50	30	124
Gill	50	35	115
Gloucester	50	30	128
Goshen	50	40	115
Gosnold	30	25	140
Grafton	50	35	126
Granby	35	35	119
Granville	50	40	117
Great Barrington ²	50	40	115
Greenfield	50	35	115
Groton	60	35	121
Groveland	50	30	123
Hadley	40	35	117
Halifax	30	30	134
Hamilton	50	30	126
Hampden	35	35	122
Hancock ²	50	40	115
Hanover	35	30	133
Hanson	35	30	133
Hardwick	50	35	120
Harvard	50	35	123

51.00: continued

TABLE R301.2(4) SNOW LOADS AND WIND SPEEDS - continued

City/Town	SNOW LOADS		Basic Wind Speed, V_{ult} (mph)
	Ground Snow Load, P_g (psf)	Minimum Flat Roof Snow Load, P_f^1 (psf)	
Harwich	25	25	140
Hatfield	40	35	117
Haverhill	50	30	123
Hawley ²	60	40	115
Heath ²	60	40	115
Hingham	35	30	131
Hinsdale ₂	60	40	115
Holbrook	35	30	131
Holden	50	35	122
Holland	40	35	124
Holliston	40	35	128
Holyoke	35	35	118
Hopedale	40	35	128
Hopkinton	40	35	127
Hubbardston	50	35	120
Hudson	50	35	124
Hull	35	30	130
Huntington	50	40	116
Ipswich	50	30	126
Kingston	30	30	135
Lakeville	30	30	136
Lancaster	50	35	122
Lanesborough ²	50	40	115
Lawrence	50	30	123
Lee ²	50	40	115
Leicester	50	35	123
Lenox ²	50	40	115
Leominster	60	35	121
Leverett	40	35	117
Lexington	40	30	126
Leyden ²	60	40	115
Lincoln	40	35	126
Littleton	50	35	123
Longmeadow	35	35	120
Lowell	50	30	123
Ludlow	35	35	120
Lunenburg	60	35	120
Lynn	40	30	128
Lynnfield	50	30	126
Malden	40	30	127
Manchester	50	30	128
Mansfield	35	30	131

51.00: continued

TABLE R301.2(4) SNOW LOADS AND WIND SPEEDS - continued

City/Town	SNOW LOADS		Basic Wind Speed, V_{ult} (mph)
	Ground Snow Load, P_g (psf)	Minimum Flat Roof Snow Load, P_r^1 (psf)	
Marblehead	40	30	128
Marion	30	30	139
Marlborough	50	35	125
Marshfield	35	30	134
Mashpee	30	25	140
Mattapoissett	30	30	139
Maynard	50	35	124
Medfield	40	35	129
Medford	40	30	127
Medway	40	35	129
Melrose	40	30	127
Mendon	40	35	128
Merrimac	50	30	123
Methuen	50	30	122
Middleborough	30	30	135
Middlefield	60	40	115
Middleton	50	30	125
Milford	40	35	128
Millbury	50	35	125
Millis	40	35	129
Millville	40	35	129
Milton	40	30	130
Monroe ²	60	40	115
Monson	40	35	122
Montague	50	35	116
Monterey	50	40	116
Montgomery	40	40	117
Mount Washington ²	40	40	115
Nahant	40	30	128
Nantucket	25	25	140
Natick	40	35	127
Needham	40	35	128
New Ashford ²	50	40	115
New Bedford	30	30	139
New Braintree	50	35	121
New Marlborough	50	40	115
New Salem	50	35	117
Newbury	50	30	125
Newburyport	50	30	124
Newton	40	30	127
Norfolk	40	35	129
North Adams ²	60	40	115

51.00: continued

TABLE R301.2(4) SNOW LOADS AND WIND SPEEDS - continued

City/Town	SNOW LOADS		Basic Wind Speed, V_{ult} (mph)
	Ground Snow Load, P_g (psf)	Minimum Flat Roof Snow Load, P_r^1 (psf)	
North Andover	50	30	123
North Attleborough	35	30	131
North Brookfield	50	35	122
North Reading	50	30	125
Northampton	40	35	117
Northborough	50	35	124
Northbridge	40	35	127
Northfield	60	35	115
Norton	35	30	133
Norwell	35	30	133
Norwood	40	35	129
Oak Bluffs	25	25	140
Oakham	50	35	121
Orange	60	35	117
Orleans	25	25	140
Otis	50	40	115
Oxford	50	35	125
Palmer	40	35	121
Paxton	50	35	122
Peabody	50	30	127
Pelham	40	35	118
Pembroke	30	30	134
Pepperell	60	35	120
Peru ²	60	40	115
Petersham	50	35	118
Phillipston	60	35	118
Pittsfield ²	50	40	115
Plainfield ²	60	40	115
Plainville	40	35	131
Plymouth	30	30	136
Plympton	30	30	135
Princeton	50	35	121
Provincetown	25	25	138
Quincy	40	30	130
Randolph	35	30	131
Raynham	35	30	134
Reading	50	30	126
Rehoboth	35	30	134
Revere	40	30	128
Richmond ²	50	40	115
Rochester	30	30	138
Rockland	35	30	132

51.00: continued

TABLE R301.2(4) SNOW LOADS AND WIND SPEEDS - continued

City/Town	SNOW LOADS		Basic Wind Speed, V_{ult} (mph)
	Ground Snow Load, P_g (psf)	Minimum Flat Roof Snow Load, P_f^1 (psf)	
Rockport	50	30	128
Rowe ²	60	40	115
Rowley	50	30	125
Royalston	60	35	116
Russell	40	40	116
Rutland	50	35	121
Salem	50	30	127
Salisbury	50	30	124
Sandisfield	50	40	115
Sandwich	30	25	139
Saugus	40	30	127
Savoy ²	60	40	115
Scituate	35	30	133
Seekonk	35	30	134
Sharon	35	35	130
Sheffield ²	40	40	115
Shelburne	50	40	115
Sherborn	40	35	127
Shirley	60	35	121
Shrewsbury	50	35	124
Shutesbury	40	35	117
Somerset	30	30	136
Somerville	40	30	127
South Hadley	35	35	118
Southampton	40	35	117
Southborough	40	35	125
Southbridge	40	35	125
Southwick	40	35	118
Spencer	50	35	123
Springfield	35	35	120
Sterling	50	35	122
Stockbridge ²	50	40	115
Stoneham	40	30	126
Stoughton	35	35	131
Stow	50	35	124
Sturbridge	40	35	124
Sudbury	40	35	125
Sunderland	40	35	116
Sutton	50	35	126
Swampscott	40	30	128
Swansea	30	30	136
Taunton	35	30	134

51.00: continued

TABLE R301.2(4) SNOW LOADS AND WIND SPEEDS - continued

City/Town	SNOW LOADS		Basic Wind Speed, V_{ult} (mph)
	Ground Snow Load, P_g (psf)	Minimum Flat Roof Snow Load, P_f^1 (psf)	
Templeton	60	35	118
Tewksbury	50	30	124
Tisbury	25	25	140
Tolland	50	40	115
Topsfield	50	30	125
Townsend	60	35	119
Truro	25	25	139
Tyngsborough	50	30	121
Tyringham ²	50	40	115
Upton	40	35	127
Uxbridge	40	35	128
Wakefield	50	30	126
Wales	40	35	123
Walpole	40	35	130
Waltham	40	30	127
Ware	40	35	120
Wareham	30	30	138
Warren	40	35	121
Warwick	60	35	115
Washington ²	60	40	115
Watertown	40	30	127
Wayland	40	35	126
Webster	50	35	126
Wellesley	40	35	127
Wellfleet	25	25	140
Wendell	50	35	117
Wenham	50	30	126
W. Boylston	50	35	123
W. Bridgewater	35	30	133
W. Brookfield	40	35	122
W. Newbury	50	30	123
W. Springfield	35	35	119
W. Stockbridge ²	40	40	115
W. Tisbury	25	25	140
Westborough	50	35	125
Westfield	40	35	118
Westford	50	35	123
Westhampton	50	40	116
Westminster	60	35	120
Weston	40	35	126
Westport	30	30	139
Westwood	40	35	129

51.00: continued

TABLE R301.2(4) SNOW LOADS AND WIND SPEEDS - continued

City/Town	SNOW LOADS		Basic Wind Speed, V_{ult} (mph)
	Ground Snow Load, P_g (psf)	Minimum Flat Roof Snow Load, P_r^1 (psf)	
Weymouth	35	30	131
Whately	50	35	116
Whitman	35	30	133
Wilbraham	35	35	121
Williamsburg	50	40	116
Williamstown ²	50	40	115
Wilmington	50	30	125
Winchendon	60	35	117
Winchester	40	30	126
Windsor ²	60	40	115
Winthrop	40	30	129
Woburn	50	30	126
Worcester	50	35	124
Worthington	60	40	115
Wrentham	40	35	130
Yarmouth	30	25	140

Note 1: The design flat roof snow load shall be the larger of the calculated flat roof snow load using P_g or the value of P_r^1 listed in this table.

Note 2: Special Wind Region. Local conditions may cause higher wind speeds than the tabulated values. See ASCE/SEI 7.

R301.2.2 Reserved

R301.2.4 Revise subsection as follows:

R301.2.4 Floodplain Construction. Buildings and structures constructed in whole or in part in flood hazard areas (including AO or V Zones) or coastal dunes as established in section R322.1.1, and substantial improvement and restoration of substantial damage of buildings and structures in flood hazard areas or coastal dunes, shall be designed and constructed in accordance with section R322. Buildings and structures that are located in more than one flood hazard area or coastal dune shall comply with the most restrictive provisions of all those flood hazard areas and coastal dunes. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24.

R301.2.4.1 Reserved

SECTION R302 FIRE-RESISTANT CONSTRUCTION

R302.1 Revise the section as follows, while retaining all exceptions:

R302.1 Exterior Walls. Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1(1); or dwellings equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13D shall comply with Table R302.1(2).

51.00: continued

Table R302.1(2) Revise footnote a. as follows:

a. For residential subdivisions where all dwellings are equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13D, the fire separation distance for nonrated exterior walls and rated projections shall be permitted to be reduced to zero feet, and unlimited unprotected openings and penetrations shall be permitted, where the adjoining lot provides an open setback yard that is six feet or more in width on the opposite side of the property line.

R302.2 Revise items 1 and 2 as follows:

1. Where a fire sprinkler system in accordance with NFPA 13, 13R, or 13D is provided, the common wall shall be not less than a one-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263.
2. Where a fire sprinkler system in accordance with NFPA 13, 13R, or 13D is not provided, the common wall shall be not less than a two-hour fire-resistance-rated fire wall assembly tested in accordance with ASTM E119 or UL 263.

Table R302.6 Revise table as follows:

TABLE R302.6 DWELLING-GARAGE SEPARATION

Separation	MATERIAL	
	Sprinklered	Not-sprinklered
From the residence and attics	Not less than ½-inch gypsum board, or equivalent, applied to the garage side	Not less than ⅝-inch Type X gypsum board, or equivalent, applied to the garage side
From habitable rooms above the garage	Not less than ⅝-inch Type X gypsum board, or equivalent	Not less than ⅝-inch Type X gypsum board, or equivalent
Structure(s) supporting floor/ceiling assemblies used for separation required by this section	Not less than ½-inch gypsum board, or equivalent	Not less than ⅝-inch Type X gypsum board, or equivalent
Garages located less than three feet from a dwelling unit on the same lot	Not less than ½-inch gypsum board, or equivalent, applied to the interior side of exterior walls that are within this area	Not less than ⅝-inch Type X gypsum board, or equivalent, applied to the interior side of exterior walls that are within this area

Note: For SI, one inch = 25.4 mm; one foot = 304.8 mm.

R302.13 Revise exception 1 as follows:

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with NFPA 13, 13R, or 13D, or other approved equivalent sprinkler system.

R302.14 Revise as follows:

Combustible Insulation Clearance: Combustible insulation shall be separated not less than three inches (76 mm) from recessed luminaires, fan motors, knob and tube wiring, and other heat-producing devices.

R303.3 Replace entire section as follows:

R303.3 Bathrooms. Mechanical ventilation in accordance with section M1507 is required for all bathrooms with a shower or bathtub and rooms with a toilet.

R305.1 Revise section as follows:

R305.1 Minimum Height. Habitable space and hallways shall have a ceiling height of not less than seven feet (2,134 mm). Bathrooms, toilet rooms, laundry rooms and habitable space in basements shall have a ceiling height of not less than six feet, eight inches (2,032 mm).

Note: Exceptions are retained.

R308.1 Add the following language at the end of the section:

See also M.G.L. c. 143, §§ 3T, 3U, and 3V.

51.00: continued

R309.3 Revise section as follows:

R309.3 Flood Hazard Areas and Coastal Dunes. For buildings located in flood hazard areas or coastal dunes, as established by section R322.1.1., garage floors shall be:

1. Elevated to or above the design flood elevation as determined in accordance with section R322.2; or
2. Located below the design flood elevation provided that the floors are at or above grade on not less than one side, are used solely for parking, building access or storage, meet the requirements of section R322.2 and are otherwise constructed in accordance with 780 CMR 51.00.

R309.5 Revise section as follows:

R309.5 Fire Sprinklers. Private garages shall be protected by fire sprinklers where the garage wall has been designed based on Table R302.1(2), footnote a. Sprinklers in garages shall be connected to an automatic sprinkler system that complies with NFPA 13, 13R, or 13D. Garage sprinklers shall be residential sprinklers or quick-response sprinklers, designed to provide a density of 0.05 gpm/ft². Garage doors shall not be considered obstructions with respect to sprinkler placement.

R310.2.1 Revise subsection as follows:

R310.2.1 Minimum Opening Area. Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 ft² (0.530 m²). The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height opening shall be not less than 24 inches (610 mm) and the net clear width shall be not less than 20 inches (508 mm).

Exceptions:

1. Grade floor or below grade openings shall have a net clear opening of not less than five ft² (0.465 m²).
2. Single-hung and/or double-hung windows shall have a minimum net clear opening of 3.3 ft² (0.31m²). In such cases, the minimum net clear opening dimensions shall be 20 inches (508 mm) by 24 inches (610 mm) in either direction.

R311.1 through R311.2.1 Revise sections and subsection as follows:

R311.1 Means of Egress. Dwelling units shall be provided with a primary and secondary means of egress in accordance with this section. Each means of egress shall provide a continuous and unobstructed path of vertical and horizontal egress travel from all portions of the dwelling to the egress doors. The primary means of egress shall not require travel through a garage but the secondary means of egress may. The required egress doors shall open directly into a public way or to a yard or court that opens to a public way.

Notes:

1. In multi-level dwellings including, but not limited to townhouses, split-level and raised ranch style layouts, the two separate egress doors may be located on different levels.
2. Where site topography prevents direct access at two remote locations to grade from the normal level of entry, the two separate egress doors may be located on different levels.

R311.2 Egress Door. A primary and secondary egress door shall be provided for each dwelling unit and shall be as remote as possible from each other. The primary egress door shall be side-hinged, and shall provide a clear width of not less than 32 inches (813 mm) where measured between the face of the door and the stop, with the door open 90° (1.57 rad). The secondary egress door shall be side-hinged or sliding, and shall provide a clear width of not less than 28 inches (711 mm) where measured between the face of the door and the stop, with the door open 90° (1.57 rad). The clear height of side-hinged door openings shall be not less than 78 inches (1,981 mm) in height measured from the top of the threshold to the bottom of the stop. Sliding door clear width may be slightly less than 28 inches (711 mm) to conform to industry fabrication standards. Other doors shall not be required to comply with these minimum dimensions. Egress doors shall be capable of being readily opened from inside the dwelling without the use of a key or special knowledge or effort.

51.00: continued

R311.2.1 Interior Doors. All doors providing access to habitable rooms shall have a minimum nominal width of 30 inches (762 mm) and a minimum nominal height of six feet, six inches (1,981 mm).

Exceptions:

1. Doors providing access to bathrooms are permitted to be 28 inches (711 mm) in nominal width.
2. Doors providing access to bathrooms in existing buildings are permitted to be 24 inches (610 mm) in nominal width.

R311.7.5.1 through R311.7.5.2.1 Revise subsections as follows:

R311.7.5.1 Risers. The riser height shall be not more than 8¼ inches (210 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than ⅝ inch (9.5 mm). Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30° (0.51 rad) from the vertical. Open risers are permitted provided that the openings located more than 30 inches (762 mm), as measured vertically, to the floor or grade below do not permit the passage of a four-inch-diameter (102 mm) sphere.

Exceptions:

1. The opening between adjacent treads is not limited on spiral stairways.
2. The riser height of spiral stairways shall be in accordance with section R311.7.10.1.

R311.7.5.2 Treads. The tread depth shall be not less than nine inches (229 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than ⅝ inch (9.5 mm).

R311.7.5.2.1 Winder Treads. Winder treads shall have a minimum tread depth equal to the tread depth of the straight run portion of the stairs measured as above at a point 12 inches from the side where the treads are narrower. Winder treads shall have a minimum tread depth of three inches at any point. Within any flight of stairs, the greatest winder tread depth at the 12 inch walk line shall not exceed the smallest by more than ⅝ inch (9.5 mm).

R313.1.1 Revise the section as follows:

R313.1.1 Design and Installation. Automatic residential fire sprinkler systems for townhouses shall be designed and installed in accordance with NFPA 13, NFPA 13R, or NFPA 13D, as applicable:

1. A townhouse building with an aggregate area of 12,000 ft², or more, shall be provided with an NFPA 13 system.
2. A townhouse building with an aggregate area of less than 12,000 ft² shall be permitted to use a NFPA 13R system.

Exception: A three-unit townhouse building with an aggregate area less than 12,000 ft² shall be permitted to use a NFPA 13D system.

For the purposes of this section, the aggregate area shall be the combined area of all stories of the building, and firewalls shall not be considered to create separate buildings. Aggregate area shall include garage areas, basement areas, and finished attic areas. Unfinished attic areas shall not be included in the aggregate area.

R313.2 through R313.2.1 Revise section and subsection as follows:

R313.2 One- and Two-family Dwellings Automatic Fire Systems. One- and two-family dwellings used as a lodging house shall be equipped with an automatic sprinkler system installed in accordance with NFPA 13D. Only one- and two-family dwellings having an aggregate area greater than 14,400 ft² shall have fire sprinklers installed in accordance with NFPA 13D. Aggregate area, for the purpose of this section, shall include basements but not garages and unfinished attics.

51.00: continued

Exception: An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings having an aggregate area greater than 14,400 ft² that are not already provided with an automatic residential sprinkler system.

R313.2.1 Design and Installation. Automatic residential fire sprinkler systems shall be designed and installed in accordance with NFPA 13D.

R314.1.1 Revise subsection as follows:

R314.1.1 Listings. Smoke alarms shall be the photoelectric type listed in accordance with UL 217 or UL 268. Combination smoke and carbon monoxide alarms shall be listed in accordance with UL 217 and UL 2034.

R314.2.2 Revise the subsection as follows:

R314.2.2 Alterations, Repairs and Additions. See Appendix J.

R314.3 Revise the section as follows:

R314.3 Location. Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
4. Smoke alarms shall be installed not less than three feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by section R314.3.
5. For each 1,000 ft² of area or part thereof.
6. Near all stairs.

R314.3.1 Reserved

R314.4 Add the following wording to the end of the exception:

and unless one or more bedrooms are being added or created.

R314.5 Revise the section as follows:

R314.5 Combination Alarms. Combination smoke and carbon monoxide ("CO") alarms shall be permitted to be used in lieu of smoke alarms and shall be interconnected such that fire alarm signals have precedence over CO alarms in accordance with the requirements of NFPA 720.

R314.6 Delete Exception 2.

R314.7.4 Revise the subsection as follows:

R314.7.4 Combination Detectors. Combination smoke and carbon monoxide detectors shall be permitted to be installed in fire alarm systems in lieu of smoke detectors, provided that they are listed in accordance with UL 268 and UL 2075. The fire alarm control panel battery shall serve as the source of secondary power for wireless systems.

R314.8 through R314.9 Add sections and subsections as follows:

R314.8 Heat Detector. A single heat detector listed for the ambient environment shall be installed in:

1. Any garage attached to or under the dwelling (detached garages do not require a heat detector).
2. A new garage attached to an existing dwelling. If the existing house contains a fire detection system that is compatible with the garage heat detector, then the detector shall be interconnected to that system. Where the existing fire detection system is not compatible with the garage heat detector, the garage heat detector shall be connected to an alarm (audible occupant notification), or compatible heat detector with an alarm, located in the dwelling and within 20 feet (6,096 mm) of the nearest door to the garage from the dwelling. An alarm is not required in the garage, either integral with or separate from the heat detector.

51.00: continued

R314.8.1 Heat Detector Placement. For flat-finished ceilings, the heat detector shall be placed on or near the center of the garage ceiling. For sloped ceilings having a rise to run of greater than one foot in eight feet (305 mm in 2,438 mm), the heat detector shall be placed in the approximate center of the vaulted ceiling but no closer than four inches (102 mm) to any wall. Heat detection shall be listed in accordance with UL 521 or UL 539.

R314.9 Common Areas. In all buildings which are not protected with sprinklers, each unit shall have additional interconnected smoke detectors on the stairway side of all doors leading to common interior stairways. If there is a common basement, a separate interconnected system of smoke detectors, including smoke detectors on the stairway side of all doors leading to interior stairways, shall be provided to serve the basement level only.

R315.1 Revise the section as follows:

R315.1 General. Carbon monoxide alarms shall comply with section R315, 248 CMR, NFPA 720, and the manufacturer's instructions. Any required carbon monoxide detection shall be interconnected.

R315.1.1 Revise the subsection as follows:

R315.1.1 Listings. Carbon monoxide alarms shall be listed in accordance with UL 2034 and UL 2075. Combination carbon monoxide and smoke alarms shall be listed in accordance with UL 2034 and UL 217.

R315.2.2 Revise the subsection as follows:

R315.2.2 Alterations, Repairs and Additions. *See Appendix J.*

R315.3 Revise the section as follows:

R315.3 Location. Carbon monoxide alarms in dwelling units shall be outside of each separate sleeping area within ten feet of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom. At least one alarm shall be installed on each story of a dwelling unit, including basements and cellars but not in crawl spaces and uninhabitable attics.

R315.4 Revise the section as follows:

R315.4 Combination Alarms. Combination carbon monoxide and smoke alarms (in compliance with section 314) shall be permitted to be used in lieu of carbon monoxide alarms, located as in R315.3, provided they are compatible and the smoke alarms take precedence.

R315.5 Revise the section as follows:

R315.5 Power Source. Carbon monoxide alarms and combination alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over current protection. Alarms may also be part of a low voltage or wireless system with standby power from monitored batteries in accordance with NFPA 72.

Exception: Carbon monoxide alarms shall be permitted to be battery operated where installed in buildings without commercial power.

R319.1 Replace the section as follows:

R319.1 Address Identification. *See M.G.L. c. 148, § 59 and applicable provisions of 527 CMR: Board of Fire Prevention Regulations.*

R320.1 Replace the section as follows:

R320.1 Scope. For townhouses, *see 521 CMR: Architectural Access Board.*

R320.1.1 Delete subsection.

51.00: continued

R321.1 through R321.3 Revise the sections as follows:

R321.1 Elevators. Where provided, passenger elevators, limited-use and limited-application elevators or private residence elevators shall comply with 524 CMR: *Board of Elevator Regulations*.

R321.2 Platform Lifts. Where provided, platform lifts shall comply with 524 CMR: *Board of Elevator Regulations*.

R321.3 Accessibility. Elevators or platform lifts that are part of an accessible route required by 780 CMR 11.00: *Accessibility* shall comply with 524 CMR: *Board of Elevator Regulations*.

R322.1 Replace the section as follows:

R322.1 General. Buildings and structures constructed in whole or in part in flood hazard areas and coastal dunes, and substantial improvement and restoration of substantial damage of buildings and structures in those areas shall be designed and constructed in accordance with the provisions contained in this section. Buildings and structures located in more than one flood hazard area and coastal dunes shall comply with the most restrictive provisions. Buildings and structures located in whole or in part in identified floodways shall be designed and constructed in accordance with ASCE 24. See section R105.3.1.1 for substantial improvements and damage and see section R309 for garage requirements. Flood hazard areas include the following:

1. AO zones, where shallow flooding exists without waves;
2. A zones; and
3. V zones, where high velocity wave action exists and wave heights are greater than or equal to three feet.

R322.1.1 Replace the subsection as follows:

R322.1.1 Base Flood Elevation, Flood Maps, Delineations and Definitions. For base flood elevation and mapping resources, see the following:

1. Flood hazard areas and base flood elevations are identified on a community's current effective Flood Insurance Rate Map ("FIRM") or Flood Hazard Boundary Map ("FHBM"), whichever is applicable, and further defined in the current effective Flood Insurance Study ("FIS") where applicable.
2. Floodways are delineated on a community's current effective FIRM or Flood Boundary & Floodway Map, whichever is applicable, and further defined in the current effective FIS.
3. If a community has received a preliminary FIRM and FIS from FEMA, and has been issued a Letter of Final Determination ("LFD") from FEMA, the community shall use the preliminary FIRM and FIS to determine applicable flood zones, base flood elevations and floodways as of the date of the LFD.
4. Coastal wetlands resource areas are defined on the "Map of Coastal Wetland Resources for Building Officials".

R322.1.4 Revise the subsection as follows:

R322.1.4 Establishing the Design Flood Elevation. The design flood elevation in Massachusetts shall be as follows:

1. For AO Zones, the design flood elevation shall be the elevation of the highest adjacent grade plus the flood depth specified on the FIRM plus one foot or the elevation of the highest adjacent grade plus three feet if no flood depth is specified. See section R322.2 for requirements.
2. For A Zones, the design flood elevation shall be the base flood elevation plus one foot. See section R322.2 for requirements.
3. For V Zones, the design flood elevation shall be the base flood elevation plus two feet. See section R322.3 for requirements.
4. For coastal dunes, see section R322.4 for requirements.

R322.1.4.2 Reserved

51.00: continued

R322.1.5 Revise the subsection as follows:

R322.1.5 Lowest Floor and Basement. The lowest floor shall be the lowest floor of the lowest enclosed area, including basement, and excluding any unfinished flood-resistant enclosure that is useable solely for vehicle parking, building access or limited storage, provided that such enclosure is not built so as to render the building or structure in violation of this section. A basement is the portion of a building, including crawl spaces, having its floor below exterior grade on all sides. This definition of "basement" is limited in application to the provisions of section R322.

R322.1.6 Revise the subsection as follows:

R322.1.6 Protection of Mechanical, Plumbing and Electrical Systems. Electrical systems, equipment and components; heating, ventilating, air conditioning; plumbing appliances and plumbing fixtures; duct systems; and other service equipment shall be located at or above the elevation required in section R322.2, R322.3 or R322.4. If replaced as part of a substantial improvement, electrical systems, equipment and components; heating, ventilating, air conditioning and plumbing appliances and plumbing fixtures; duct systems; and other service equipment shall meet the requirements of this section. Systems, fixtures, and equipment and components shall not be mounted on or penetrate through walls intended to break away under flood loads.

Exception: Locating electrical systems, equipment and components; heating, ventilating, air conditioning; plumbing appliances and plumbing fixtures; duct systems; and other service equipment only within flood hazard areas including A and AO Zones is permitted below the elevation required in section R322.2, provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the design flood elevation in accordance with ASCE 24. Electrical wiring systems are permitted to be located below the required elevation provided that they conform to the provisions of the electrical part of 780 CMR 51.00 for wet locations.

R322.1.7 Reserved

R322.1.9 Revise the subsection as follows:

R322.1.9 Manufactured Homes. The bottom of the frame of new and replacement manufactured homes on foundations that conform to the requirements of section R322.2 or R322.3 and R322.4, as applicable, shall be elevated to or above the elevations specified in section R322.2 (flood hazard areas including AO and A Zones) or R322.3 in coastal high hazard areas (V Zones) and R322.4 in coastal dunes. The anchor and tie-down requirements of the applicable state or federal requirements shall apply. The foundation and anchorage of manufactured homes to be located in identified floodways shall be designed and constructed in accordance with ASCE 24.

R322.1.10 Revise the subsection as follows:

R322.1.10 As-built Elevation Documentation. A registered design professional shall prepare and seal documentation for submittal of the elevations specified in section R322.2, R322.3 or R322.4.

R322.1.11 Add the following subsection as follows:

R322.1.11 Construction Documents. The construction documents shall include documentation that is prepared and sealed by a registered design professional that the design and methods of construction to be used meet the applicable criteria of this section.

R322.2 Revise the section as follows:

R322.2 Flood Hazard Areas (Including A and AO Zones). Buildings and structures constructed in whole or in part in A and AO Zones shall be designed and constructed in accordance with sections R322.2.1 through R322.2.3.

51.00: continued

R322.2.1 Revise subsection as follows:

R322.2.1 Elevation Requirements.

1. Buildings and structures in A Zones, shall have the lowest floor elevated to or above the design flood elevation.
2. In AO Zones, buildings and structures shall have the lowest floor (including basement) elevated to a height of not less than the design flood elevation.
3. Basement floors that are below grade on all sides shall be elevated to or above design flood elevation.

R322.2.2 Revise the subsection as follows:

R322.2.2 Enclosed Area below Design Flood Elevation. Enclosed areas, including crawl spaces, that are below the design flood elevation and are not basements shall:

1. Be used solely for parking of vehicles, building access or storage.
2. Be provided with flood openings that meet the following criteria and are installed in accordance with section R322.2.2.1:
 - 2.1. The total net area of openings shall be not less than one in² (645 mm²) for each ft² (0.093 m²) of enclosed area where the enclosed area is measured on the exterior of the enclosure walls, or the openings shall be designed as engineered openings and the construction documents shall include a statement by a registered design professional that the design of the openings will provide for equalization of hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwaters as specified in section 2.6.2.2 of ASCE 24.
 - 2.2. Openings shall be not less than three inches (76 mm) in any direction in the plane of the wall.

R322.2.2.1 Revise the subsection as follows:

R322.2.2.1 Installation of Openings. The walls of enclosed areas shall have openings installed such that:

1. There shall be not less than two openings on different sides of each enclosed area; if a building has more than one enclosed area below the design flood elevation, each area shall have openings on exterior walls.
2. The bottom of each opening shall be not more than one foot (305 mm) above the higher of the final interior grade or floor and the finished existing exterior grade immediately under each opening.
3. Openings shall be permitted to be installed in doors and windows; doors and windows without installed openings do not meet the requirements of this section.

R322.3 through R322.3.7 Revise the section and subsections as follows:

R322.3 Coastal High-hazard Areas (Including V Zones). Buildings and structures constructed in whole or in part in V Zones shall be designed and constructed in accordance with sections R322.3.1 through R322.3.6.

R322.3.1 Location and Site Preparation. New buildings and buildings that are determined to be substantially improved pursuant to section R105.3.1.1 shall be located landward of the reach of mean high tide.

R322.3.2 Elevation Requirements.

1. Buildings and structures shall be elevated so that the bottom of the lowest portion of horizontal structural members supporting the lowest floor, with the exception of pilings, pile caps, columns, grade beams and bracing, is elevated to the design flood elevation.
2. Basement floors that are below grade on all sides are prohibited.
3. The use of fill for structural support is prohibited.
4. Minor grading, and the placement of minor quantities of fill, shall be permitted for landscaping and for drainage purposes under and around buildings and for support of parking slabs, pool decks, patios and walkways. Fill is prohibited unless such fill is constructed and/or placed to avoid diversion of water and waves toward any building or structure.
5. Walls and partitions enclosing areas below the design flood elevation shall meet the requirements of sections R322.3.4 and R322.3.5.

51.00: continued

6. For lateral additions in V Zones that are not a substantial improvement, only the addition shall be elevated so that the bottom of the lowest horizontal structural member of the lowest floor with the exception of pilings, pile caps, columns, grade beams and bracing, is located at an elevation that is at least the design flood elevation.

R322.3.3 Foundations. Buildings and structures erected in coastal high-hazard areas and shall be supported on pilings or columns and shall be adequately anchored to such pilings or columns. The space below the elevated building shall be either free of obstruction or, if enclosed with walls, the walls shall meet the requirements of section R322.3.4. Pilings shall have adequate soil penetrations to resist the combined wave and wind loads (lateral and uplift). Water-loading values used shall be those associated with the design flood. Wind-loading values shall be those required by 780 CMR 51.00. Pile embedment shall include consideration of decreased resistance capacity caused by scour of soil strata surrounding the piling. Pile systems design and installation shall be certified in accordance with section R322.3.6. Spread footing, mat, raft or other foundations that support columns shall not be permitted where soil investigations that are required in accordance with section R401.4 indicate that soil material under the spread footing, mat, raft or other foundation is subject to scour or erosion from wave-velocity flow conditions. If permitted, spread footing, mat, raft or other foundations that support columns shall be designed in accordance with ASCE 24. Slabs, pools, pool decks and walkways shall be located and constructed to be structurally independent of buildings and structures and their foundations to prevent transfer of flood loads to the buildings and structures during conditions of flooding, scour or erosion from wave-velocity flow conditions, unless the buildings and structures and their foundations are designed to resist the additional flood load.

R322.3.4 Walls below Design Flood Elevation. Walls and partitions are permitted below the elevated floor, provided that such walls and partitions are not part of the structural support of the building or structure and:

1. Electrical, mechanical and plumbing system components are not to be mounted on or penetrate through walls that are designed to break away under flood loads; and
2. Are constructed with insect screening or open lattice; or
3. Are designed to break away or collapse without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Such walls, framing and connections shall have a resistance of not less than ten lbs. per ft² (479 Pa) and not more than 20 lbs. per ft² (958 Pa) as determined using allowable stress design; or
4. Where wind loading values of 780 CMR 51.00 exceed 20 lbs. per ft² (958 Pa), the construction documents shall include documentation prepared and sealed by a registered design professional that:
 - 4.1 The walls and partitions below the design flood elevation have been designed to collapse from a water load less than that which would occur during the base flood.
 - 4.2 The elevated portion of the building and supporting foundation system have been designed to withstand the effects of wind and flood loads acting simultaneously on structural and nonstructural building components. Water-loading values used shall be those associated with the design flood. Wind-loading values shall be those required by 780 CMR 51.00; or
5. Walls intended to break away under flood loads as specified in Item 3 or 4 have flood openings that meet the criteria in section R322.2.2, Item 2.

R322.3.6 Construction Documents. Reserved

R322.4 through R322.4.6 Add the section and subsections as follows:

R322.4 Coastal Dunes. Buildings or structures constructed in whole or in part in coastal dunes shall be designed and constructed in accordance with sections R322.4.1 through R322.4.6.

51.00: continued

R322.4.1 Construction Documents. For buildings and structures, including new or replacement manufactured homes, lateral additions, foundations that are replaced in total or repaired so as to constitute substantial repair of a foundation, or substantial repair or improvement of a building or structure that has incurred substantial damage as a result of flooding and/or storms, proposed on a parcel of land that is located wholly or partially within a coastal wetland resource area shown on the map entitled "Map of Coastal Wetland Resources For Building Officials," the building official shall require submission of one of the construction documents specified in section R322.4.1 (a) through (d) along with a notarized statement by the applicant that the order, determination or notice is in effect and is not the subject of any administrative appeals before the Department of Environmental Protection or the Division of Administrative Law Appeals. No building permit shall be issued unless and until a construction document that conforms to the requirements of this section is submitted.

(a) An order of conditions establishing the boundaries of all coastal wetland resource areas in a plan referenced in and accompanying the order. The order shall determine whether the coastal wetland resource areas are significant to any of the interests identified in the Wetlands Protection Act, M.G.L. c. 131, § 40 including the interests of flood control and storm damage prevention. If the order indicates that the proposed construction work is located within a coastal dune that is significant to the interests of flood control and/or storm damage prevention, the order of conditions shall allow the proposed construction.

(b) An order of resource area delineation stating that the proposed construction work is outside the boundaries of all coastal wetland resource areas as shown on a plan referenced in and accompanying the order.

(c) A determination of applicability stating that the proposed construction work is outside the boundaries of all coastal wetland resource areas as shown on a plan referenced in and accompanying the determination or will not fill, dredge or alter a coastal wetland resource area.

(d) A notice of non-significance evidencing that the proposed construction work is within a coastal wetland resource area as shown on a plan referenced in and accompanying the notice and stating that the coastal wetland resource area is not significant to any of the interests identified in M.G.L. c. 131, § 40 (the Wetlands Protection Act).

R322.4.2 Structural Elevation. The elevation of the bottom of the lowest horizontal structural member, as required by the lowest floor elevation inspection in subsection R109.1.3, shall be submitted.

R322.4.3 Additional Documentation. Documentation for buildings located in more than one zone shall meet the requirements of all zones.

R322.4.4 Elevation Requirements. For new buildings and structures, new foundations, replacement or substantial repair of a foundation, or repair of a substantially damaged structure where damage is the result of a storm or flooding the entire structure shall be elevated so that the bottom of the lowest horizontal structural member of the lowest floor is located at the elevation required by the order of conditions of the local conservation commission in accordance with the Wetlands Protection Act, M.G.L. c. 131, § 40 (the Wetland Protection Act) and Wetlands Protection Regulations, 310 CMR 10.21 through 10.35. For lateral additions that are not a substantial improvement, only the addition shall be elevated so that the bottom of the lowest horizontal structural member of the lowest floor is located at the elevation required by the order of conditions of the local conservation commission in accordance with M.G.L. c. 131, § 40 and Wetlands Protection Regulations, 310 CMR 10.21 through 10.35.

R322.4.5 Foundations. Foundations for work meeting the elevation requirements of section R322 shall consist of open pilings without footings to allow the movement of the dune.

51.00: continued

Exception: Where surface or subsurface conditions consist of non-erodible soil that prevents the use of pile foundations, spread footings or mat foundations may be permitted. Such foundations shall be anchored to prevent sliding, uplift or overturning of the footing and the non-erodible soil it is attached to and be designed to withstand any combination of loads. No other use of alternate materials, design and methods of construction and equipment as described in R104.11 is permitted.

R322.4.6 Enclosed Areas below Design Flood Elevation. Enclosures are not permitted below the lowest horizontal structural member of the lowest floor.

R324.3 Delete the words "*International Fire Code*" at the end of the sentence.

R324.3 Replace the section as follows:

R324.3 Photovoltaic Systems. Photovoltaic systems shall be designed and installed in accordance with all governing loading conditions, fire protection, energy conservation and weatherization requirements dictated by 780 CMR 51.00 and the electrical requirements of 527 CMR: *Board of Fire Prevention Regulations* and those of the manufacturer.

R324.4 through R324.7 Delete all sections and associated subsections.

R326.1 Revise the section as follows:

R326.1 General. The design and construction of pools and spas shall comply with the *International Swimming Pool and Spa Code* and the following notes:

Notes:

1. Public and semi-public outdoor in-ground swimming pool enclosures shall conform to the requirements of M.G.L. c. 140, § 206.
2. Also see 521 CMR 19.00: *Recreational Facilities*.
3. Also see 105 CMR 430.00: *Minimum Standards for Recreational Camps for Children (State Sanitary Code, Chapter IV)* and 435.00: *Minimum Standards for Swimming Pools (State Sanitary Code: Chapter V)* as such regulate swimming pool requirements.
4. Installation of electrical wiring and electrical devices shall be in accordance with 527 CMR: *Board of Fire Prevention Regulations*.
5. Installation of gas-fired pool heaters shall be in accordance with 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 4: FOUNDATIONS

R401.3 Revise the section as follows:

R401.3 Drainage. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection that does not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of six inches (152 mm) within the first ten feet (3,048 mm). Temporary and finished grading shall not direct nor create flooding or damage to adjacent property during or after completion of construction.

R401.4.1 Revise the subsection as follows:

R401.4.1 Geotechnical Evaluation. In lieu of a complete geotechnical evaluation, the load-bearing values in Table R401.4.1 or 780 CMR Table 1806.2a shall be assumed.

R403.1 Revise the section as follows:

R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, crushed stone footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils, compacted fill not more than 12 inches (305 mm) in depth, provided that the fill is adequately compacted using appropriate mechanical means, or engineered fill. Concrete footing shall be designed and constructed in accordance with the provisions of section R403 or in accordance with ACI 332.

CHAPTER 4 - FOUNDATIONS - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

Exception: Where surface or subsurface conditions consist of non-erodible soil that prevents the use of pile foundations, spread footings or mat foundations may be permitted. Such foundations shall be anchored to prevent sliding, uplift or overturning of the footing and the non-erodible soil it is attached to and be designed to withstand any combination of loads. No other use of alternate materials, design and methods of construction and equipment as described in R104.11 is permitted.

R322.4.6 Enclosed Areas below Design Flood Elevation. Enclosures are not permitted below the lowest horizontal structural member of the lowest floor.

R324.3 Delete the words "*International Fire Code*" at the end of the sentence.

R324.3 Replace the section as follows:

R324.3 Photovoltaic Systems. Photovoltaic systems shall be designed and installed in accordance with all governing loading conditions, fire protection, energy conservation and weatherization requirements dictated by 780 CMR 51.00 and the electrical requirements of 527 CMR: *Board of Fire Prevention Regulations* and those of the manufacturer.

R324.4 through R324.7 Delete all sections and associated subsections.

R326.1 Revise the section as follows:

R326.1 General. The design and construction of pools and spas shall comply with the *International Swimming Pool and Spa Code* and the following notes:

Notes:

1. Public and semi-public outdoor in-ground swimming pool enclosures shall conform to the requirements of M.G.L. c. 140, § 206.
2. Also see 521 CMR 19.00: *Recreational Facilities*.
3. Also see 105 CMR 430.00: *Minimum Standards for Recreational Camps for Children (State Sanitary Code, Chapter IV)* and 435.00: *Minimum Standards for Swimming Pools (State Sanitary Code: Chapter V)* as such regulate swimming pool requirements.
4. Installation of electrical wiring and electrical devices shall be in accordance with 527 CMR: *Board of Fire Prevention Regulations*.
5. Installation of gas-fired pool heaters shall be in accordance with 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 4: FOUNDATIONS

R401.3 Revise the section as follows:

R401.3 Drainage. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection that does not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of six inches (152 mm) within the first ten feet (3,048 mm). Temporary and finished grading shall not direct nor create flooding or damage to adjacent property during or after completion of construction.

R401.4.1 Revise the subsection as follows:

R401.4.1 Geotechnical Evaluation. In lieu of a complete geotechnical evaluation, the load-bearing values in Table R401.4.1 or 780 CMR Table 1806.2a shall be assumed.

R403.1 Revise the section as follows:

R403.1 General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, crushed stone footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils, compacted fill not more than 12 inches (305 mm) in depth, provided that the fill is adequately compacted using appropriate mechanical means, or engineered fill. Concrete footing shall be designed and constructed in accordance with the provisions of section R403 or in accordance with ACI 332.

51.00: continued

R403.1.6 Revise the subsection as follows:

R403.1.6 Foundation Anchorage. Wood sill plates and wood walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section. Cold-formed steel framing shall be anchored directly to the foundation or fastened to wood sill plates anchored to the foundation. Anchorage of cold-formed steel framing and sill plates supporting cold-formed steel framing shall be in accordance with this section and section R505.3.1 or R603.3.1. Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with minimum ½-inch diameter (12.7 mm) A 307 or other applicable steel anchor bolts spaced a maximum of six feet (1,829 mm) on center or approved anchors or anchor straps spaced as required to provide equivalent anchorage to ½-inch diameter (12.7 mm) anchor bolts, installed in accordance with the manufacturer's instructions. Bolts shall extend a minimum of seven inches (178 mm) into concrete or grouted cells of concrete masonry units. The bolts shall be located in the middle third of the width of the plate. A nut and washer shall be tightened on each anchor bolt. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 inches (305 mm) or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundation that are not part of a braced wall panel shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by sections R317 and R318.

R404.1.7 Revise the subsection as follows:

R404.1.7 Backfill Placement. Backfill shall not be placed against the wall until the wall has sufficient strength and has been anchored to the floor above, or has been sufficiently braced to prevent damage by the backfill. Backfill material shall be free draining and free of organic materials, construction debris, cobbles and boulders, shall be placed in lifts not exceeding 12 inches and shall be mechanically compacted. Foundation walls shall be properly braced prior to the setting of a manufactured building.

R406.2.1 Add subsection as follows:

R406.2.1 Through-wall Formwork Ties. Through-wall formwork ties shall be removed from both faces of the foundation walls which enclose basements, cellars, below-grade garages or any space having the potential to be converted to useable or occupied space. Remaining holes shall be patched with hydraulic cement.

R408.7 Delete the exception.

Chapter 5: FLOORS

R502.3 Revise the section as follows:

R502.3 Allowable Joist Spans. Spans for floor joists shall be in accordance with Tables R502.3.1(1) and R502.3.1(2). For other grades and species and for other loading conditions, refer to the AWC STJR or the American Wood Council ("AWC") Maximum Span Calculator for Wood Joists & Rafters found at:
<http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>

R502.11.1 Revise the subsection as follows:

R502.11.1 Design. Wood trusses shall be designed in accordance with approved engineering practice. The design and manufacture of metal-plate-connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered design professional.

R506.1.1 Add the subsection as follows:

R506.1.1 Control Joints. Slabs shall be constructed with control joints having a depth of at least one quarter of the slab thickness but not less than one inch (25 mm). Joints shall be spaced at intervals not greater than 30 feet (9,144 mm) in each direction. Control joints shall be placed at locations where the slab width or length changes.

CHAPTER 5 – FLOORS - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSA);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

R403.1.6 Revise the subsection as follows:

R403.1.6 Foundation Anchorage. Wood sill plates and wood walls supported directly on continuous foundations shall be anchored to the foundation in accordance with this section. Cold-formed steel framing shall be anchored directly to the foundation or fastened to wood sill plates anchored to the foundation. Anchorage of cold-formed steel framing and sill plates supporting cold-formed steel framing shall be in accordance with this section and section R505.3.1 or R603.3.1. Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with minimum ½-inch diameter (12.7 mm) A 307 or other applicable steel anchor bolts spaced a maximum of six feet (1,829 mm) on center or approved anchors or anchor straps spaced as required to provide equivalent anchorage to ½-inch diameter (12.7 mm) anchor bolts, installed in accordance with the manufacturer's instructions. Bolts shall extend a minimum of seven inches (178 mm) into concrete or grouted cells of concrete masonry units. The bolts shall be located in the middle third of the width of the plate. A nut and washer shall be tightened on each anchor bolt. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 inches (305 mm) or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundation that are not part of a braced wall panel shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by sections R317 and R318.

R404.1.7 Revise the subsection as follows:

R404.1.7 Backfill Placement. Backfill shall not be placed against the wall until the wall has sufficient strength and has been anchored to the floor above, or has been sufficiently braced to prevent damage by the backfill. Backfill material shall be free draining and free of organic materials, construction debris, cobbles and boulders, shall be placed in lifts not exceeding 12 inches and shall be mechanically compacted. Foundation walls shall be properly braced prior to the setting of a manufactured building.

R406.2.1 Add subsection as follows:

R406.2.1 Through-wall Formwork Ties. Through-wall formwork ties shall be removed from both faces of the foundation walls which enclose basements, cellars, below-grade garages or any space having the potential to be converted to useable or occupied space. Remaining holes shall be patched with hydraulic cement.

R408.7 Delete the exception.

Chapter 5: FLOORS

R502.3 Revise the section as follows:

R502.3 Allowable Joist Spans. Spans for floor joists shall be in accordance with Tables R502.3.1(1) and R502.3.1(2). For other grades and species and for other loading conditions, refer to the AWC STJR or the American Wood Council ("AWC") Maximum Span Calculator for Wood Joists & Rafters found at:
<http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>

R502.11.1 Revise the subsection as follows:

R502.11.1 Design. Wood trusses shall be designed in accordance with approved engineering practice. The design and manufacture of metal-plate-connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered design professional.

R506.1.1 Add the subsection as follows:

R506.1.1 Control Joints. Slabs shall be constructed with control joints having a depth of at least one quarter of the slab thickness but not less than one inch (25 mm). Joints shall be spaced at intervals not greater than 30 feet (9,144 mm) in each direction. Control joints shall be placed at locations where the slab width or length changes.

51.00: continued

Exception: Control joints may be omitted when the slab is reinforced in accordance with Table R506.1.1. Reinforcement shall be placed at the mid-depth of the slab or two inches (51 mm) from the top of slabs greater than four inches (102 mm) in thickness.

Table R506.1.1

MAXIMUM DIMENSION OF SLAB OR DISTANCE BETWEEN CONTROL JOINTS (ft)						WWF WIRE SPACING (in.)	WWF WIRE SIZE DESIGNATION (in.)
Slab Thickness (in.)							
3.5	4.0	4.5	5.0	5.5	6.0		
42	36	32	29	26	24	6 x 6	W1.4 x W1.4
59	52	46	42	38	35	6 x 6	W2.0 x W2.0
86	75	67	60	55	50	6 x 6	W2.9 x W2.9

Chapter 6: WALL CONSTRUCTION

R602.10 Add an exception as follows:

Exception: Unconditioned single story rooms of areas less than 600 ft² thermally isolated from conditioned space.

Chapter 7: WALL COVERING

R702.3.5.2 Add subsection as follows:

702.3.5.2 Ceiling Attachment. Only designs or methods that use mechanical fasteners in accordance with Table R702.3.5 shall be used for attaching gypsum board to ceilings in buildings governed by 780 CMR 51.00 including manufactured buildings. Alternative designs, such as using adhesive only, are not permitted.

Chapter 8: ROOF-CEILING CONSTRUCTION

R802.5 and R802.5 Revise the sections as follows:

R802.4 Allowable Ceiling Joist Spans. Spans for ceiling joists shall be in accordance with Tables R802.4(1) and R802.4(2). For other grades and species and for other loading conditions, refer to the AWC STJR or utilize the American Wood Council ("AWC") Maximum Span Calculator for Wood Joists & Rafters found at:
<http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

R802.5 Allowable Rafter Spans. Spans for rafters shall be in accordance with Tables R802.5.1(1) through R802.5.1(8). For other grades and species and for other loading conditions, refer to the AWC STJR. The span of each rafter shall be measured along the horizontal projection of the rafter or utilize the AWC Maximum Span Calculator for Wood Joists & Rafters at: <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

Chapter 9: ROOF ASSEMBLIES

R901.1 Revise the section as follows:

R901.1 Scope. The provisions of this chapter shall govern the design, materials, construction and quality of roof assemblies. In roofing and reroofing, the energy conservation requirements of Chapter 11 of 780 CMR 51.00 shall also be satisfied.

R905.1 Revise the section as follows:

R905.1 Roof Covering Application. Roof coverings shall be applied in accordance with the applicable provisions of this section and the manufacturer's installation instructions. Unless otherwise specified in this section, roof coverings shall be installed to resist the component and cladding loads specified in Table R301.2(2), adjusted for height and exposure in accordance with Table R301.2(3). Where there is a discrepancy between the requirements of this section and the manufacturer's printed instructions or code evaluation report, the manufacturer's printed instructions or code evaluation report shall govern.

CHAPTER 6 - WALL CONSTRUCTION - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are ***unofficial versions*** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

Exception: Control joints may be omitted when the slab is reinforced in accordance with Table R506.1.1. Reinforcement shall be placed at the mid-depth of the slab or two inches (51 mm) from the top of slabs greater than four inches (102 mm) in thickness.

Table R506.1.1

MAXIMUM DIMENSION OF SLAB OR DISTANCE BETWEEN CONTROL JOINTS (ft)						WWF WIRE SPACING (in.)	WWF WIRE SIZE DESIGNATION (in.)
Slab Thickness (in.)							
3.5	4.0	4.5	5.0	5.5	6.0		
42	36	32	29	26	24	6 x 6	W1.4 x W1.4
59	52	46	42	38	35	6 x 6	W2.0 x W2.0
86	75	67	60	55	50	6 x 6	W2.9 x W2.9

Chapter 6: WALL CONSTRUCTION

R602.10 Add an exception as follows:

Exception: Unconditioned single story rooms of areas less than 600 ft² thermally isolated from conditioned space.

Chapter 7: WALL COVERING

R702.3.5.2 Add subsection as follows:

702.3.5.2 Ceiling Attachment. Only designs or methods that use mechanical fasteners in accordance with Table R702.3.5 shall be used for attaching gypsum board to ceilings in buildings governed by 780 CMR 51.00 including manufactured buildings. Alternative designs, such as using adhesive only, are not permitted.

Chapter 8: ROOF-CEILING CONSTRUCTION

R802.5 and R802.5 Revise the sections as follows:

R802.4 Allowable Ceiling Joist Spans. Spans for ceiling joists shall be in accordance with Tables R802.4(1) and R802.4(2). For other grades and species and for other loading conditions, refer to the AWC STJR or utilize the American Wood Council ("AWC") Maximum Span Calculator for Wood Joists & Rafters found at:
<http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

R802.5 Allowable Rafter Spans. Spans for rafters shall be in accordance with Tables R802.5.1(1) through R802.5.1(8). For other grades and species and for other loading conditions, refer to the AWC STJR. The span of each rafter shall be measured along the horizontal projection of the rafter or utilize the AWC Maximum Span Calculator for Wood Joists & Rafters at: <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

Chapter 9: ROOF ASSEMBLIES

R901.1 Revise the section as follows:

R901.1 Scope. The provisions of this chapter shall govern the design, materials, construction and quality of roof assemblies. In roofing and reroofing, the energy conservation requirements of Chapter 11 of 780 CMR 51.00 shall also be satisfied.

R905.1 Revise the section as follows:

R905.1 Roof Covering Application. Roof coverings shall be applied in accordance with the applicable provisions of this section and the manufacturer's installation instructions. Unless otherwise specified in this section, roof coverings shall be installed to resist the component and cladding loads specified in Table R301.2(2), adjusted for height and exposure in accordance with Table R301.2(3). Where there is a discrepancy between the requirements of this section and the manufacturer's printed instructions or code evaluation report, the manufacturer's printed instructions or code evaluation report shall govern.

CHAPTER 7 – WALL COVERING - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are ***unofficial versions*** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [**International Building Code \(IBC\) Transition**](#)
- [**International Residential Code \(IRC\) Transition**](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

Exception: Control joints may be omitted when the slab is reinforced in accordance with Table R506.1.1. Reinforcement shall be placed at the mid-depth of the slab or two inches (51 mm) from the top of slabs greater than four inches (102 mm) in thickness.

Table R506.1.1

MAXIMUM DIMENSION OF SLAB OR DISTANCE BETWEEN CONTROL JOINTS (ft)						WWF WIRE SPACING (in.)	WWF WIRE SIZE DESIGNATION (in.)
Slab Thickness (in.)							
3.5	4.0	4.5	5.0	5.5	6.0		
42	36	32	29	26	24	6 x 6	W1.4 x W1.4
59	52	46	42	38	35	6 x 6	W2.0 x W2.0
86	75	67	60	55	50	6 x 6	W2.9 x W2.9

Chapter 6: WALL CONSTRUCTION

R602.10 Add an exception as follows:

Exception: Unconditioned single story rooms of areas less than 600 ft² thermally isolated from conditioned space.

Chapter 7: WALL COVERING

R702.3.5.2 Add subsection as follows:

702.3.5.2 Ceiling Attachment. Only designs or methods that use mechanical fasteners in accordance with Table R702.3.5 shall be used for attaching gypsum board to ceilings in buildings governed by 780 CMR 51.00 including manufactured buildings. Alternative designs, such as using adhesive only, are not permitted.

Chapter 8: ROOF-CEILING CONSTRUCTION

R802.5 and R802.5 Revise the sections as follows:

R802.4 Allowable Ceiling Joist Spans. Spans for ceiling joists shall be in accordance with Tables R802.4(1) and R802.4(2). For other grades and species and for other loading conditions, refer to the AWC STJR or utilize the American Wood Council ("AWC") Maximum Span Calculator for Wood Joists & Rafters found at:
<http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

R802.5 Allowable Rafter Spans. Spans for rafters shall be in accordance with Tables R802.5.1(1) through R802.5.1(8). For other grades and species and for other loading conditions, refer to the AWC STJR. The span of each rafter shall be measured along the horizontal projection of the rafter or utilize the AWC Maximum Span Calculator for Wood Joists & Rafters at: <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

Chapter 9: ROOF ASSEMBLIES

R901.1 Revise the section as follows:

R901.1 Scope. The provisions of this chapter shall govern the design, materials, construction and quality of roof assemblies. In roofing and reroofing, the energy conservation requirements of Chapter 11 of 780 CMR 51.00 shall also be satisfied.

R905.1 Revise the section as follows:

R905.1 Roof Covering Application. Roof coverings shall be applied in accordance with the applicable provisions of this section and the manufacturer's installation instructions. Unless otherwise specified in this section, roof coverings shall be installed to resist the component and cladding loads specified in Table R301.2(2), adjusted for height and exposure in accordance with Table R301.2(3). Where there is a discrepancy between the requirements of this section and the manufacturer's printed instructions or code evaluation report, the manufacturer's printed instructions or code evaluation report shall govern.

CHAPTER 8 - ROOF-CEILING CONSTRUCTION - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

Exception: Control joints may be omitted when the slab is reinforced in accordance with Table R506.1.1. Reinforcement shall be placed at the mid-depth of the slab or two inches (51 mm) from the top of slabs greater than four inches (102 mm) in thickness.

Table R506.1.1

MAXIMUM DIMENSION OF SLAB OR DISTANCE BETWEEN CONTROL JOINTS (ft)						WWF WIRE SPACING (in.)	WWF WIRE SIZE DESIGNATION (in.)
Slab Thickness (in.)							
3.5	4.0	4.5	5.0	5.5	6.0		
42	36	32	29	26	24	6 x 6	W1.4 x W1.4
59	52	46	42	38	35	6 x 6	W2.0 x W2.0
86	75	67	60	55	50	6 x 6	W2.9 x W2.9

Chapter 6: WALL CONSTRUCTION

R602.10 Add an exception as follows:

Exception: Unconditioned single story rooms of areas less than 600 ft² thermally isolated from conditioned space.

Chapter 7: WALL COVERING

R702.3.5.2 Add subsection as follows:

702.3.5.2 Ceiling Attachment. Only designs or methods that use mechanical fasteners in accordance with Table R702.3.5 shall be used for attaching gypsum board to ceilings in buildings governed by 780 CMR 51.00 including manufactured buildings. Alternative designs, such as using adhesive only, are not permitted.

Chapter 8: ROOF-CEILING CONSTRUCTION

R802.5 and R802.5 Revise the sections as follows:

R802.4 Allowable Ceiling Joist Spans. Spans for ceiling joists shall be in accordance with Tables R802.4(1) and R802.4(2). For other grades and species and for other loading conditions, refer to the AWC STJR or utilize the American Wood Council ("AWC") Maximum Span Calculator for Wood Joists & Rafters found at: <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

R802.5 Allowable Rafter Spans. Spans for rafters shall be in accordance with Tables R802.5.1(1) through R802.5.1(8). For other grades and species and for other loading conditions, refer to the AWC STJR. The span of each rafter shall be measured along the horizontal projection of the rafter or utilize the AWC Maximum Span Calculator for Wood Joists & Rafters at: <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

Chapter 9: ROOF ASSEMBLIES

R901.1 Revise the section as follows:

R901.1 Scope. The provisions of this chapter shall govern the design, materials, construction and quality of roof assemblies. In roofing and reroofing, the energy conservation requirements of Chapter 11 of 780 CMR 51.00 shall also be satisfied.

R905.1 Revise the section as follows:

R905.1 Roof Covering Application. Roof coverings shall be applied in accordance with the applicable provisions of this section and the manufacturer's installation instructions. Unless otherwise specified in this section, roof coverings shall be installed to resist the component and cladding loads specified in Table R301.2(2), adjusted for height and exposure in accordance with Table R301.2(3). Where there is a discrepancy between the requirements of this section and the manufacturer's printed instructions or code evaluation report, the manufacturer's printed instructions or code evaluation report shall govern.

CHAPTER 9 – ROOF ASSEMBLIES - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

Exception: Control joints may be omitted when the slab is reinforced in accordance with Table R506.1.1. Reinforcement shall be placed at the mid-depth of the slab or two inches (51 mm) from the top of slabs greater than four inches (102 mm) in thickness.

Table R506.1.1

MAXIMUM DIMENSION OF SLAB OR DISTANCE BETWEEN CONTROL JOINTS (ft)						WWF WIRE SPACING (in.)	WWF WIRE SIZE DESIGNATION (in.)
Slab Thickness (in.)							
3.5	4.0	4.5	5.0	5.5	6.0		
42	36	32	29	26	24	6 x 6	W1.4 x W1.4
59	52	46	42	38	35	6 x 6	W2.0 x W2.0
86	75	67	60	55	50	6 x 6	W2.9 x W2.9

Chapter 6: WALL CONSTRUCTION

R602.10 Add an exception as follows:

Exception: Unconditioned single story rooms of areas less than 600 ft² thermally isolated from conditioned space.

Chapter 7: WALL COVERING

R702.3.5.2 Add subsection as follows:

702.3.5.2 Ceiling Attachment. Only designs or methods that use mechanical fasteners in accordance with Table R702.3.5 shall be used for attaching gypsum board to ceilings in buildings governed by 780 CMR 51.00 including manufactured buildings. Alternative designs, such as using adhesive only, are not permitted.

Chapter 8: ROOF-CEILING CONSTRUCTION

R802.5 and R802.5 Revise the sections as follows:

R802.4 Allowable Ceiling Joist Spans. Spans for ceiling joists shall be in accordance with Tables R802.4(1) and R802.4(2). For other grades and species and for other loading conditions, refer to the AWC STJR or utilize the American Wood Council ("AWC") Maximum Span Calculator for Wood Joists & Rafters found at: <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

R802.5 Allowable Rafter Spans. Spans for rafters shall be in accordance with Tables R802.5.1(1) through R802.5.1(8). For other grades and species and for other loading conditions, refer to the AWC STJR. The span of each rafter shall be measured along the horizontal projection of the rafter or utilize the AWC Maximum Span Calculator for Wood Joists & Rafters at: <http://www.awc.org/calculators/span/calc/timbercalcstyle.asp>.

Chapter 9: ROOF ASSEMBLIES

R901.1 Revise the section as follows:

R901.1 Scope. The provisions of this chapter shall govern the design, materials, construction and quality of roof assemblies. In roofing and reroofing, the energy conservation requirements of Chapter 11 of 780 CMR 51.00 shall also be satisfied.

R905.1 Revise the section as follows:

R905.1 Roof Covering Application. Roof coverings shall be applied in accordance with the applicable provisions of this section and the manufacturer's installation instructions. Unless otherwise specified in this section, roof coverings shall be installed to resist the component and cladding loads specified in Table R301.2(2), adjusted for height and exposure in accordance with Table R301.2(3). Where there is a discrepancy between the requirements of this section and the manufacturer's printed instructions or code evaluation report, the manufacturer's printed instructions or code evaluation report shall govern.

51.00: continued

R905.16 Reserved

R906.1 Revise the section as follows:

R906.1 General. The use of above-deck thermal insulation shall be permitted provided such insulation is covered with an approved roof covering and complies with FM 4450 or UL 1256. In roofing and reroofing, the energy conservation requirements of Chapter 11 of 780 CMR 51.00 shall also be satisfied.

R907.1 through R907.5 Reserved

R909.1 through R909.3 Reserved

Chapter 10: CHIMNEYS AND FIREPLACES

R1001.1 Revise the section as follows:

R1001.1 General. Masonry fireplaces shall be constructed in accordance with this section and the applicable provisions of Chapters 3 and 4 of 780 CMR 51.00. Chimneys shall be structurally sound, durable, smoke tight and capable of conveying flue gases to the exterior safely.

Chapter 11: ENERGY EFFICIENCY

N1100.1 Add the following sections as follows:

1100.1 Adoption. Buildings shall be designed and constructed in accordance with the *International Energy Conservation Code-2015* ("IECC"), as amended by Chapter 11 of 780 CMR 51.00.

N1101.1 (R401.1) Revise the section as follows:

N1101.1 (R401.1) Scope. This chapter regulates the energy efficiency for the design and construction of buildings regulated by 780 CMR. Municipalities which have adopted the Stretch Energy Code shall use the energy efficiency requirements of 780 CMR 110 *Appendix AA*.

N1101.6 (R202) Add and/or revise the following defined terms:

CLEAN BIOMASS STOVE. Wood- or pellet-fired stoves that are EPA certified; and have a particulate matter emissions rating of no more than 3.5 g/hr for non-catalytic wood and pellet stoves; or 2.0 g/hr for catalytic wood and pellet stoves.

CLEAN BIOMASS HEATING SYSTEMS. Wood-pellet fired central boilers and furnaces where the equipment has a thermal efficiency rating of 80% (higher heating value) or greater; and a particulate matter emissions rating of no more than 0.15 lb/MMBtu PM heat output.

N1101.13 (R401.13) Revise the section as follows:

N1101.13 (R401.2) Compliance. Projects shall comply with one of the following:

1. Sections N1101.14 (R401.3) through N1104 (R404).
2. Section N1105 (R405) and the provisions of sections N1101.14 (R401.3) through N1104 (R404) labeled "Mandatory."
3. An energy rating index ("ERI") approach, or approved alternative energy performance rating method in section N1106 (R406) and the provisions of sections N1101.14 (R401.3) through N1104 (R404) labeled "Mandatory." Qualifying approaches under N1106 (R406) include the following:
 - a. Certified RESNET HERS rating with Massachusetts amendments.
 - b. Certified Energy Star Homes, Version 3.1.
 - c. Certified Passivehaus performance method.

N1101.14 (R401.3) Add the following to the end of the paragraph:

The Certificate shall list the final HERS index score when applicable.

CHAPTER 10 – CHIMNEYS & FIREPLACES – AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

R905.16 Reserved

R906.1 Revise the section as follows:

R906.1 General. The use of above-deck thermal insulation shall be permitted provided such insulation is covered with an approved roof covering and complies with FM 4450 or UL 1256. In roofing and reroofing, the energy conservation requirements of Chapter 11 of 780 CMR 51.00 shall also be satisfied.

R907.1 through R907.5 Reserved

R909.1 through R909.3 Reserved

Chapter 10: CHIMNEYS AND FIREPLACES

R1001.1 Revise the section as follows:

R1001.1 General. Masonry fireplaces shall be constructed in accordance with this section and the applicable provisions of Chapters 3 and 4 of 780 CMR 51.00. Chimneys shall be structurally sound, durable, smoke tight and capable of conveying flue gases to the exterior safely.

Chapter 11: ENERGY EFFICIENCY

N1100.1 Add the following sections as follows:

1100.1 Adoption. Buildings shall be designed and constructed in accordance with the *International Energy Conservation Code-2015* ("IECC"), as amended by Chapter 11 of 780 CMR 51.00.

N1101.1 (R401.1) Revise the section as follows:

N1101.1 (R401.1) Scope. This chapter regulates the energy efficiency for the design and construction of buildings regulated by 780 CMR. Municipalities which have adopted the Stretch Energy Code shall use the energy efficiency requirements of 780 CMR 110 *Appendix AA*.

N1101.6 (R202) Add and/or revise the following defined terms:

CLEAN BIOMASS STOVE. Wood- or pellet-fired stoves that are EPA certified; and have a particulate matter emissions rating of no more than 3.5 g/hr for non-catalytic wood and pellet stoves; or 2.0 g/hr for catalytic wood and pellet stoves.

CLEAN BIOMASS HEATING SYSTEMS. Wood-pellet fired central boilers and furnaces where the equipment has a thermal efficiency rating of 80% (higher heating value) or greater; and a particulate matter emissions rating of no more than 0.15 lb/MMBtu PM heat output.

N1101.13 (R401.13) Revise the section as follows:

N1101.13 (R401.2) Compliance. Projects shall comply with one of the following:

1. Sections N1101.14 (R401.3) through N1104 (R404).
2. Section N1105 (R405) and the provisions of sections N1101.14 (R401.3) through N1104 (R404) labeled "Mandatory."
3. An energy rating index ("ERP") approach, or approved alternative energy performance rating method in section N1106 (R406) and the provisions of sections N1101.14 (R401.3) through N1104 (R404) labeled "Mandatory." Qualifying approaches under N1106 (R406) include the following:
 - a. Certified RESNET HERS rating with Massachusetts amendments.
 - b. Certified Energy Star Homes, Version 3.1.
 - c. Certified Passivehaus performance method.

N1101.14 (R401.3) Add the following to the end of the paragraph:

The Certificate shall list the final HERS index score when applicable.

CHAPTER 11 – ENERGY EFFICIENCY - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

R905.16 Reserved

R906.1 Revise the section as follows:

R906.1 General. The use of above-deck thermal insulation shall be permitted provided such insulation is covered with an approved roof covering and complies with FM 4450 or UL 1256. In roofing and reroofing, the energy conservation requirements of Chapter 11 of 780 CMR 51.00 shall also be satisfied.

R907.1 through R907.5 Reserved

R909.1 through R909.3 Reserved

Chapter 10: CHIMNEYS AND FIREPLACES

R1001.1 Revise the section as follows:

R1001.1 General. Masonry fireplaces shall be constructed in accordance with this section and the applicable provisions of Chapters 3 and 4 of 780 CMR 51.00. Chimneys shall be structurally sound, durable, smoke tight and capable of conveying flue gases to the exterior safely.

Chapter 11: ENERGY EFFICIENCY

N1100.1 Add the following sections as follows:

1100.1 Adoption. Buildings shall be designed and constructed in accordance with the *International Energy Conservation Code-2015* ("IECC"), as amended by Chapter 11 of 780 CMR 51.00.

N1101.1 (R401.1) Revise the section as follows:

N1101.1 (R401.1) Scope. This chapter regulates the energy efficiency for the design and construction of buildings regulated by 780 CMR. Municipalities which have adopted the Stretch Energy Code shall use the energy efficiency requirements of 780 CMR 110 *Appendix AA*.

N1101.6 (R202) Add and/or revise the following defined terms:

CLEAN BIOMASS STOVE. Wood- or pellet-fired stoves that are EPA certified; and have a particulate matter emissions rating of no more than 3.5 g/hr for non-catalytic wood and pellet stoves; or 2.0 g/hr for catalytic wood and pellet stoves.

CLEAN BIOMASS HEATING SYSTEMS. Wood-pellet fired central boilers and furnaces where the equipment has a thermal efficiency rating of 80% (higher heating value) or greater; and a particulate matter emissions rating of no more than 0.15 lb/MMBtu PM heat output.

N1101.13 (R401.13) Revise the section as follows:

N1101.13 (R401.2) Compliance. Projects shall comply with one of the following:

1. Sections N1101.14 (R401.3) through N1104 (R404).
2. Section N1105 (R405) and the provisions of sections N1101.14 (R401.3) through N1104 (R404) labeled "Mandatory."
3. An energy rating index ("ERI") approach, or approved alternative energy performance rating method in section N1106 (R406) and the provisions of sections N1101.14 (R401.3) through N1104 (R404) labeled "Mandatory." Qualifying approaches under N1106 (R406) include the following:
 - a. Certified RESNET HERS rating with Massachusetts amendments.
 - b. Certified Energy Star Homes, Version 3.1.
 - c. Certified Passivehaus performance method.

N1101.14 (R401.3) Add the following to the end of the paragraph:

The Certificate shall list the final HERS index score when applicable.

51.00: continued

Table N1102.1.2 (R402.1.2) Revise the table as follows:

Climate Zone 5 and Marine 4 Fenestration U Factor shall be "0.30".

Table N1102.1.4 (R402.1.4) Revise the table as follows:

Climate Zone 5 and Marine 4 Fenestration U Factor shall be "0.30".

N1102.1.5.1 (R402.1.5.1) Add the subsection as follows:

N1102.1.5.1 (R402.1.5.1) Approved Software for Total UA Alternative: The following software is approved for demonstrating Total UA compliance:

1. REScheck Version 4.6.4 or later, available at:
<http://www.energycodes.gov/rescheck>
2. REScheck-Web available at <https://energycode.pnl.gov/REScheckWeb/>

N1103.3.3 (R403.3.3) Add the following paragraph before the exception:

Post-construction or rough-in testing and verification shall be done by a HERS Rater, HERS Rating Field Inspector, or an applicable BPI Certified Professional.

N1103.6 (R403.6) Replace the section as follows:

N1103.6 (R403.6) Mechanical Ventilation (Mandatory). Each dwelling unit of a residential building shall be provided with continuously operating exhaust, supply or balanced mechanical ventilation that has been site verified to meet a minimum airflow per:

1. Energy Star Homes Version, 3.1;
2. ASHRAE 62.2-2013; or
3. the following formula for one- and two-family dwellings and townhouses of three or less stories above grade plane:

$$Q = .03 \times \text{CFA} + 7.5 \times (N_{br} + 1) - 0.052 \times Q_{50} \times S \times \text{WSF}$$

Where: CFA is the conditioned floor area in ft²

N_{br} is the number of bedrooms

Q₅₀ is the verified blower door air leakage rate in cfm measured at 50 Pascals

S is the building height factor determined by this table:

Stories above grade plane	1	2	3
S	1.00	1.32	1.55

WSF is the shielded weather factor as determined by this table:

County	WSF
Barnstable	0.6
Berkshire	0.52
Bristol	0.54
Dukes	0.59
Essex	0.58
Franklin	0.52
Hampden	0.49
Hampshire	0.59
Middlesex	0.55
Nantucket	0.61
Norfolk	0.52
Plymouth	0.53
Suffolk	0.66
Worcester	0.59

N1103.6.2 (R403.6.2) through N1103.6.6 (R403.6.6) Add the subsections as follows:

N1103.6.2 (R403.6.2) Verification: Installed performance of the mechanical ventilation system shall be tested and verified by a HERS Rater, HERS Rating Field Inspector, or an applicable BPI Certified Professional, and measured using a flow hood, flow grid, or other airflow measuring device in accordance with either RESNET Standard Chapter 8 or ACCA Standard 5.

51.00: continued

N1103.6.3 (R403.6.3) Air-moving Equipment, Selection and Installation. As referenced in ASHRAE Standard 62.2-2013, section 7.1, ventilation devices and equipment shall be tested and certified by Air Movement and Control Association ("AMCA") or Home Ventilating Institute ("HVI") and the certification label shall be found on the product. Installation of systems or equipment shall be carried out in accordance with manufacturers' design requirements and installation instructions. Where multiple duct sizes and/or exterior hoods are standard options, the minimum size shall not be used.

N1103.6.4 (R403.6.4) Sound Rating. Sound ratings for fans used for whole building ventilation shall be rated at a maximum of one sone.

Exception: HVAC air handlers and remote-mounted fans need not meet sound requirements. There shall be at least four feet of ductwork between the remote-mounted fan and intake grille.

N1103.6.5 (R403.6.5) Documentation. The owner and the occupant of the dwelling unit shall be provided with information on the ventilation design and systems installed, as well as instructions on the proper operation and maintenance of the ventilation systems. Ventilation controls shall be labeled with regard to their function, unless the function is obvious.

N1103.6.6 (R403.6.6) Air Inlets and Exhausts. All ventilation air inlets shall be located a minimum of ten feet from vent openings for plumbing drainage systems, appliance vent outlets, exhaust hood outlets, vehicle exhaust, or other known contamination sources; and shall not be obstructed by snow, plantings, or any other material. Outdoor forced air inlets shall be covered with rodent screens having mesh openings not greater than ½ inch. A whole house mechanical ventilation system shall not extract air from an unconditioned basement unless approved by a registered design professional. Where wall inlet or exhaust vents are less than seven feet above finished grade in the area of the venting including, but not limited to, decks and porches, a metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight feet above grade directly in line with the vent terminal. The sign shall read, in print no less than ½ inch in size, "MECH. VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS."

Exceptions:

1. Ventilation air inlets in the wall shall be separated from dryer exhausts and contamination sources exiting through the roof by a minimum of three feet.
2. No minimum separation distance shall be required between local exhaust outlets in kitchens/bathrooms and windows.
3. Vent terminations that meet the requirements of the *National Fuel Gas Code* (NFPA 54/ ANSI Z223.1) or equivalent.

N1104.3 (R404.2) Reserved

N1106.1 (R406.1) through N1106.1.2 Revise and/or add the section and subsections as follows:

N1106.1 (R406.1) Scope. This section establishes criteria for compliance using an Energy Rating Index ("ERI") analysis, or approved alternative energy performance rating methods.

N1106.1.1 (R406.1.1) Approved Alternative Energy Performance Methods. The following rating threshold criteria are sufficient to demonstrate energy code compliance under section N1106 (R406) without calculation of a standard reference design. The mandatory provisions of subsection N1106.2 (R406.2) also apply:

1. **ENERGY STAR Homes 3.1 Path.** New buildings or additions to an existing building, building system or portion thereof shall be certified to conform to the ENERGY STAR Certified Homes, Version 3.1 standard.
2. **Passive House Institute US ("PHIUS") or Passive House Institute ("PHI") Approved Software.** PHIUS+ 2015: Passive Building Standard – North America, or another approved software by PHIUS or PHI, where specific space heat demand, as modeled by a certified passive house consultant, is less than or equal to 10 kBtu/ft²/year.
3. Any other software approved by the Board of Building Regulations and Standards.

51.00: continued

N1106.1.2 (R406.1.2) Documentation. The following documentation is required for energy code compliance under subsection N1106.1.1 (R406.1.1):

1. If using ENERGY STAR Homes, Version 3.1 path:
 - a. Prior to the issuance of a building permit, the following item shall be provided to the building official:
 - i. A copy of the preliminary HERS rating, based on plans.
 - b. Prior to the issuance of a certificate of occupancy, the following items shall be provided to the building official:
 - i. A copy of the final ENERGY STAR Homes certificate;
 - ii. A copy of the certified HERS rating; and
 - iii. A copy of the signed ENERGY STAR Thermal Enclosure System Checklist.
2. If using PHIUS or PHI passive house software:
 - a. Prior to the issuance of a building permit, the following items shall be provided to the building official:
 - i. A list of compliance features; and
 - ii. A statement that the estimated specific space heat demand is "based on plans."
 - b. Prior to the issuance of a certificate of occupancy, the following item shall be provided to the building official:
 - i. A copy of the final report, submitted on a form that is approved to document compliance with current PHIUS or PHI standards. Said report shall indicate that the finished building achieves a certified passive house consultant-verified specific space heat demand of less than or equal to 10kBTU/ft²/year.

N1106.3 (R406.3) Add the following sentence to the end of the paragraph:

The RESNET Home Energy Rating System ("HERS") index is the approved ERI approach in the Commonwealth.

N1106.4 (R406.4) Revise the section as follows:

N1106.4 (R406.4) ERI-based Compliance. Compliance based on an ERI analysis requires that the rated design be shown to have an ERI less than or equal to the appropriate value listed in Table N1106.4 (R406.4) when compared to the ERI reference design prior to credit for onsite renewable electric generation.

N1106.4.1 (R406.4.1) Add the subsection, and associated table, as follows:

N1106.4.1 (R406.4.1) Trade-off for Onsite Renewable Energy Systems. New construction following N1106.3 (R406.3) or existing buildings and additions following N1107.4 (R407.4) may use any combination of the following renewable energy trade-offs to increase the maximum allowable HERS rating for each unit separately served by any combination of the following:

1. Solar photovoltaic array rated at 2.5kW or higher shall offset five HERS points.
2. Clean biomass heating system, solar thermal array, or geothermal heat pump, or a combination of these systems, operating as the primary heating system shall offset five HERS points.
3. Solar thermal array for primary domestic hot water heating or a clean biomass stove shall offset two HERS points.

Note: A clean biomass stove offset may not be combined with a primary heating system offset.

51.00: continued

Table N1106.4.1 (R406.4.1). Maximum HERS Ratings with Onsite Renewable Energy Systems

Renewable Energy Source	Maximum HERS index score ^a	
	New construction	Whole house renovations; additions
None	55	65
Solar PV > 2.5kW; Renewable primary heating system	60	70
Solar PV; Renewable primary heating and solar thermal DHW	62	72
Solar PV & Renewable primary heating and solar thermal DHW	67	77

^aMaximum HERS rating prior to onsite electric renewable generation in accordance with section N1106.4 (R406.4).

N1106.5 (R406.5) Revise the section as follows:

N1106.5 (R406.5) Verification by Approved Agency. Verification of compliance with section N1106 shall be completed by an approved third party. For compliance using a HERS rating or Energy Star Homes 3.1 certification, verification of compliance shall be completed by the certified HERS rater. For compliance using PHIUS+ 2015 or PHI software, verification of compliance shall be completed by a certified passive house consultant.

N1108.1.2 (R502.1.2) Add an exception to the subsection as follows:

Exception: Alternatively, the addition and any alterations that are part of the project shall comply with N1106 (R406) and shall achieve a maximum HERS index using Table N1106.4.1 (R406.4.1).

Chapter 12: MECHANICAL ADMINISTRATION

M1201.1 Revise the section as follows:

M1201.1 Scope. The provisions of Chapters 12 through 23 of 780 CMR 51.00 shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and used to control environmental conditions within buildings. These chapters shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed in this code.

For the provisions of Chapters 12 through 23 of 780 CMR 51.00 governed by the specialized codes (see 780 CMR 1.00: *Scope and Administration (Unique to Massachusetts)*), see the applicable specialized codes. Provisions related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00. Enforcement of work governed by the specialized codes shall be by those persons so authorized.

Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

Chapter 13: GENERAL MECHANICAL SYSTEM REQUIREMENTS

M1303.2 Add the section as follows:

M1303.2 Solid Fuel-burning Central Heating Appliance Labeling. Solid fuel-burning boilers or warm air furnaces shall bear a permanent and legible factory-applied label supplied to the manufacturer and controlled by an approved testing agency; such label shall contain applicable items in section M1303.1 and the following information:

- Type of appliance (boiler or warm air furnace); and
- Boilers, pressure vessels, and pressure relief devices shall be stamped in accordance with M.G.L. c. 146, §§ 24 and 34.

51.00: continued

Chapter 14: HEATING AND COOLING EQUIPMENT

M1401.6 Add section and associated subsections as follows:

M1401.6 Used Solid Fuel-burning Appliances. Used solid fuel-burning appliances that predate the listing requirements set forth in 780 CMR 51.00 may be utilized but the installation of such appliances shall otherwise conform to the requirements of 780 CMR 51.00, as applicable, and such installations shall be inspected by the building official (or fire official in such towns that utilize the fire official for such inspection purposes).

M1401.6.1 Clearances to Combustibles. In the absence of listed clearances and floor protection requirements, used solid fuel-burning appliances shall be installed in accordance with the clearances of 780 CMR 51.00.

M1401.6.2 Floor Protection General. Floor protection listing requirements for a used appliance shall be met. In the absence of listing requirements, solid fuel-burning appliances shall have floor protection that is noncombustible material applied to the combustible or noncombustible floor area underneath and extending in front, to the sides and to the rear of a heat producing appliance, and have the necessary thermal conductivity to satisfy the floor protection requirements of the appliance. Various "hearth rugs," "mats," "tile board," "hearth board" and similar products sold as floor protectors may be noncombustible but may not satisfy thermal conductivity requirements of this section.

M1401.6.2.1 Floor Protection Requirements. Floor protection requirements shall be:

1. four inches (102 mm) of millboard having a thermal conductivity $k = 0.84$ (Btu)(inch)/(ft²)(hour)(°F);
 2. a noncombustible floor protector of the same overall thermal conductivity in (1.);
- or
3. approved by a registered design professional.

Exception: If existing floor protection can be demonstrated to have been adequate for a previous installation of a used solid fuel-burning appliance, then such floor protection shall be allowed. If calculations demonstrate that the existing floor protection has a thermal conductivity lower than that set by this section, then the existing floor protection may be maintained.

M1414.1 Revise the section as follows:

M1414.1 General. Fireplace stoves shall be listed, labeled and installed in accordance with the terms of the listing. Fireplace stoves shall be tested in accordance with UL 737. Also see Chapter 10 of 780 CMR 51.00 for detailed guidance on solid fuel-burning appliances.

Chapter 15: EXHAUST SYSTEMS (no amendments)

Chapter 16: DUCT SYSTEMS

M1601.3 Replace the section as follows:

M1601.3 Duct Insulation Materials. Duct insulation shall conform to the following requirements and the requirements of Chapter 11 of 780 CMR 51.00.

M1601.4 Replace the section as follows:

M1601.4 Installation. Duct installation shall comply with Subsections M1601.4.1 through M1601.4.7 and the requirements of Chapter 11 of 780 CMR 51.00.

CHAPTER 12 – MECHANICAL ADMINISTRATION – AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

Table N1106.4.1 (R406.4.1). Maximum HERS Ratings with Onsite Renewable Energy Systems

Renewable Energy Source	Maximum HERS index score *	
	New construction	Whole house renovations; additions
None	55	65
Solar PV > 2.5kW; Renewable primary heating system	60	70
Solar PV; Renewable primary heating and solar thermal DHW	62	72
Solar PV & Renewable primary heating and solar thermal DHW	67	77

* Maximum HERS rating prior to onsite electric renewable generation in accordance with section N1106.4 (R406.4).

N1106.5 (R406.5) Revise the section as follows:

N1106.5 (R406.5) Verification by Approved Agency. Verification of compliance with section N1106 shall be completed by an approved third party. For compliance using a HERS rating or Energy Star Homes 3.1 certification, verification of compliance shall be completed by the certified HERS rater. For compliance using PHIUS+ 2015 or PHI software, verification of compliance shall be completed by a certified passive house consultant.

N1108.1.2 (R502.1.2) Add an exception to the subsection as follows:

Exception: Alternatively, the addition and any alterations that are part of the project shall comply with N1106 (R406) and shall achieve a maximum HERS index using Table N1106.4.1 (R406.4.1).

Chapter 12: MECHANICAL ADMINISTRATION

M1201.1 Revise the section as follows:

M1201.1 Scope. The provisions of Chapters 12 through 23 of 780 CMR 51.00 shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and used to control environmental conditions within buildings. These chapters shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed in this code.

For the provisions of Chapters 12 through 23 of 780 CMR 51.00 governed by the specialized codes (see 780 CMR 1.00: *Scope and Administration (Unique to Massachusetts)*), see the applicable specialized codes. Provisions related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00. Enforcement of work governed by the specialized codes shall be by those persons so authorized.

Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

Chapter 13: GENERAL MECHANICAL SYSTEM REQUIREMENTS

M1303.2 Add the section as follows:

M1303.2 Solid Fuel-burning Central Heating Appliance Labeling. Solid fuel-burning boilers or warm air furnaces shall bear a permanent and legible factory-applied label supplied to the manufacturer and controlled by an approved testing agency; such label shall contain applicable items in section M1303.1 and the following information:

- a. Type of appliance (boiler or warm air furnace); and
- b. Boilers, pressure vessels, and pressure relief devices shall be stamped in accordance with M.G.L. c. 146, §§ 24 and 34.

CHAPTER 13 – GENERAL MECHANICAL SYSTEMS - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

Table N1106.4.1 (R406.4.1). Maximum HERS Ratings with Onsite Renewable Energy Systems

Renewable Energy Source	Maximum HERS index score ^a	
	New construction	Whole house renovations; additions
None	55	65
Solar PV > 2.5kW; Renewable primary heating system	60	70
Solar PV; Renewable primary heating and solar thermal DHW	62	72
Solar PV & Renewable primary heating and solar thermal DHW	67	77

^aMaximum HERS rating prior to onsite electric renewable generation in accordance with section N1106.4 (R406.4).

N1106.5 (R406.5) Revise the section as follows:

N1106.5 (R406.5) Verification by Approved Agency. Verification of compliance with section N1106 shall be completed by an approved third party. For compliance using a HERS rating or Energy Star Homes 3.1 certification, verification of compliance shall be completed by the certified HERS rater. For compliance using PHIUS+ 2015 or PHI software, verification of compliance shall be completed by a certified passive house consultant.

N1108.1.2 (R502.1.2) Add an exception to the subsection as follows:

Exception: Alternatively, the addition and any alterations that are part of the project shall comply with N1106 (R406) and shall achieve a maximum HERS index using Table N1106.4.1 (R406.4.1).

Chapter 12: MECHANICAL ADMINISTRATION

M1201.1 Revise the section as follows:

M1201.1 Scope. The provisions of Chapters 12 through 23 of 780 CMR 51.00 shall regulate the design, installation, maintenance, alteration and inspection of mechanical systems that are permanently installed and used to control environmental conditions within buildings. These chapters shall also regulate those mechanical systems, system components, equipment and appliances specifically addressed in this code.

For the provisions of Chapters 12 through 23 of 780 CMR 51.00 governed by the specialized codes (*see* 780 CMR 1.00: *Scope and Administration (Unique to Massachusetts)*), *see* the applicable specialized codes. Provisions related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00. Enforcement of work governed by the specialized codes shall be by those persons so authorized.

Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

Chapter 13: GENERAL MECHANICAL SYSTEM REQUIREMENTS

M1303.2 Add the section as follows:

M1303.2 Solid Fuel-burning Central Heating Appliance Labeling. Solid fuel-burning boilers or warm air furnaces shall bear a permanent and legible factory-applied label supplied to the manufacturer and controlled by an approved testing agency; such label shall contain applicable items in section M1303.1 and the following information:

- a. Type of appliance (boiler or warm air furnace); and
- b. Boilers, pressure vessels, and pressure relief devices shall be stamped in accordance with M.G.L. c. 146, §§ 24 and 34.

CHAPTER 14 – HEATING & COOLING – AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

Chapter 14: HEATING AND COOLING EQUIPMENT

M1401.6 Add section and associated subsections as follows:

M1401.6 Used Solid Fuel-burning Appliances. Used solid fuel-burning appliances that predate the listing requirements set forth in 780 CMR 51.00 may be utilized but the installation of such appliances shall otherwise conform to the requirements of 780 CMR 51.00, as applicable, and such installations shall be inspected by the building official (or fire official in such towns that utilize the fire official for such inspection purposes).

M1401.6.1 Clearances to Combustibles. In the absence of listed clearances and floor protection requirements, used solid fuel-burning appliances shall be installed in accordance with the clearances of 780 CMR 51.00.

M1401.6.2 Floor Protection General. Floor protection listing requirements for a used appliance shall be met. In the absence of listing requirements, solid fuel-burning appliances shall have floor protection that is noncombustible material applied to the combustible or noncombustible floor area underneath and extending in front, to the sides and to the rear of a heat producing appliance, and have the necessary thermal conductivity to satisfy the floor protection requirements of the appliance. Various "hearth rugs," "mats," "tile board," "hearth board" and similar products sold as floor protectors may be noncombustible but may not satisfy thermal conductivity requirements of this section.

M1401.6.2.1 Floor Protection Requirements. Floor protection requirements shall be:

1. four inches (102 mm) of millboard having a thermal conductivity $k = 0.84$ (Btu)(inch)/(ft²)(hour)(°F);
 2. a noncombustible floor protector of the same overall thermal conductivity in (1.);
- or
3. approved by a registered design professional.

Exception: If existing floor protection can be demonstrated to have been adequate for a previous installation of a used solid fuel-burning appliance, then such floor protection shall be allowed. If calculations demonstrate that the existing floor protection has a thermal conductivity lower than that set by this section, then the existing floor protection may be maintained.

M1414.1 Revise the section as follows:

M1414.1 General. Fireplace stoves shall be listed, labeled and installed in accordance with the terms of the listing. Fireplace stoves shall be tested in accordance with UL 737. Also *see* Chapter 10 of 780 CMR 51.00 for detailed guidance on solid fuel-burning appliances.

Chapter 15: EXHAUST SYSTEMS (no amendments)

Chapter 16: DUCT SYSTEMS

M1601.3 Replace the section as follows:

M1601.3 Duct Insulation Materials. Duct insulation shall conform to the following requirements and the requirements of Chapter 11 of 780 CMR 51.00.

M1601.4 Replace the section as follows:

M1601.4 Installation. Duct installation shall comply with Subsections M1601.4.1 through M1601.4.7 and the requirements of Chapter 11 of 780 CMR 51.00.

CHAPTER 15 – EXHAUST SYSTEMS

NO AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

Chapter 14: HEATING AND COOLING EQUIPMENT

M1401.6 Add section and associated subsections as follows:

M1401.6 Used Solid Fuel-burning Appliances. Used solid fuel-burning appliances that predate the listing requirements set forth in 780 CMR 51.00 may be utilized but the installation of such appliances shall otherwise conform to the requirements of 780 CMR 51.00, as applicable, and such installations shall be inspected by the building official (or fire official in such towns that utilize the fire official for such inspection purposes).

M1401.6.1 Clearances to Combustibles. In the absence of listed clearances and floor protection requirements, used solid fuel-burning appliances shall be installed in accordance with the clearances of 780 CMR 51.00.

M1401.6.2 Floor Protection General. Floor protection listing requirements for a used appliance shall be met. In the absence of listing requirements, solid fuel-burning appliances shall have floor protection that is noncombustible material applied to the combustible or noncombustible floor area underneath and extending in front, to the sides and to the rear of a heat producing appliance, and have the necessary thermal conductivity to satisfy the floor protection requirements of the appliance. Various "hearth rugs," "mats," "tile board," "hearth board" and similar products sold as floor protectors may be noncombustible but may not satisfy thermal conductivity requirements of this section.

M1401.6.2.1 Floor Protection Requirements. Floor protection requirements shall be:

1. four inches (102 mm) of millboard having a thermal conductivity $k = 0.84$ (Btu)(inch)/(ft²)(hour)(°F);
 2. a noncombustible floor protector of the same overall thermal conductivity in (1.);
- or
3. approved by a registered design professional.

Exception: If existing floor protection can be demonstrated to have been adequate for a previous installation of a used solid fuel-burning appliance, then such floor protection shall be allowed. If calculations demonstrate that the existing floor protection has a thermal conductivity lower than that set by this section, then the existing floor protection may be maintained.

M1414.1 Revise the section as follows:

M1414.1 General. Fireplace stoves shall be listed, labeled and installed in accordance with the terms of the listing. Fireplace stoves shall be tested in accordance with UL 737. Also *see* Chapter 10 of 780 CMR 51.00 for detailed guidance on solid fuel-burning appliances.

Chapter 15: EXHAUST SYSTEMS (no amendments)

Chapter 16: DUCT SYSTEMS

M1601.3 Replace the section as follows:

M1601.3 Duct Insulation Materials. Duct insulation shall conform to the following requirements and the requirements of Chapter 11 of 780 CMR 51.00.

M1601.4 Replace the section as follows:

M1601.4 Installation. Duct installation shall comply with Subsections M1601.4.1 through M1601.4.7 and the requirements of Chapter 11 of 780 CMR 51.00.

CHAPTER 16 – DUCT SYSTEMS - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on January 1, 2018.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

Chapter 14: HEATING AND COOLING EQUIPMENT

M1401.6 Add section and associated subsections as follows:

M1401.6 Used Solid Fuel-burning Appliances. Used solid fuel-burning appliances that predate the listing requirements set forth in 780 CMR 51.00 may be utilized but the installation of such appliances shall otherwise conform to the requirements of 780 CMR 51.00, as applicable, and such installations shall be inspected by the building official (or fire official in such towns that utilize the fire official for such inspection purposes).

M1401.6.1 Clearances to Combustibles. In the absence of listed clearances and floor protection requirements, used solid fuel-burning appliances shall be installed in accordance with the clearances of 780 CMR 51.00.

M1401.6.2 Floor Protection General. Floor protection listing requirements for a used appliance shall be met. In the absence of listing requirements, solid fuel-burning appliances shall have floor protection that is noncombustible material applied to the combustible or noncombustible floor area underneath and extending in front, to the sides and to the rear of a heat producing appliance, and have the necessary thermal conductivity to satisfy the floor protection requirements of the appliance. Various "hearth rugs," "mats," "tile board," "hearth board" and similar products sold as floor protectors may be noncombustible but may not satisfy thermal conductivity requirements of this section.

M1401.6.2.1 Floor Protection Requirements. Floor protection requirements shall be:

1. four inches (102 mm) of millboard having a thermal conductivity $k = 0.84$ (Btu)(inch)/(ft²)(hour)(°F);
 2. a noncombustible floor protector of the same overall thermal conductivity in (1.);
- or
3. approved by a registered design professional.

Exception: If existing floor protection can be demonstrated to have been adequate for a previous installation of a used solid fuel-burning appliance, then such floor protection shall be allowed. If calculations demonstrate that the existing floor protection has a thermal conductivity lower than that set by this section, then the existing floor protection may be maintained.

M1414.1 Revise the section as follows:

M1414.1 General. Fireplace stoves shall be listed, labeled and installed in accordance with the terms of the listing. Fireplace stoves shall be tested in accordance with UL 737. Also see Chapter 10 of 780 CMR 51.00 for detailed guidance on solid fuel-burning appliances.

Chapter 15: EXHAUST SYSTEMS (no amendments)

Chapter 16: DUCT SYSTEMS

M1601.3 Replace the section as follows:

M1601.3 Duct Insulation Materials. Duct insulation shall conform to the following requirements and the requirements of Chapter 11 of 780 CMR 51.00.

M1601.4 Replace the section as follows:

M1601.4 Installation. Duct installation shall comply with Subsections M1601.4.1 through M1601.4.7 and the requirements of Chapter 11 of 780 CMR 51.00.

51.00: continued

M1601.4.6 Revise the first paragraph of the subsection as follows:

M1601.4.6 Duct Insulation. Duct insulation shall be installed in accordance with the following requirements and the requirements of Chapter 11 of 780 CMR 51.00. Where conflict exists between the requirements of this section and Chapter 11 of 780 CMR 51.00, the requirements set forth in Chapter 11 of 780 CMR 51.00 shall govern.

Chapter 17: COMBUSTION AIR

M1701.1 Revise the section as follows:

M1701.1 Scope. Solid fuel-burning appliances shall be provided with combustion air in accordance with the appliance manufacturer's installation instructions. Oil-fired appliances shall be provided with combustion air in accordance with 527 CMR: *Board of Fire Prevention Regulations*. The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct vent appliances. The requirements for combustion and dilution air for gas-fired appliances shall be in accordance with Chapter 24 of 780 CMR 51.00.

Chapter 18: CHIMNEY AND VENTS

M1801.1 Delete the last sentence in the paragraph.

M1801.11 Delete the exception to requirement 1.

M1801.12 Add the following exception to the subsection:

Exception: Unless common connection is allowed by 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters* or 527 CMR: *Board of Fire Prevention Regulations*. If allowed, the common flue shall be of such size to serve all appliances connected if such appliances were operated simultaneously. Note that 248 CMR and 527 CMR are enforced by gas inspectors and the heads of fire departments, respectively.

Chapter 19: SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS (no amendments)

Chapter 20: BOILERS AND WATER HEATERS (no amendments)

Chapter 21: HYDRONIC PIPING

M2101.3 Revise the subsection as follows:

M2101.3 Protection of Potable Water. The potable water system shall be protected from backflow in accordance with the provisions of the Department of Environmental Protection and/or the local water purveyor, as applicable.

Chapter 22: SPECIAL PIPING AND STORAGE SYSTEMS

Delete all sections of CHAPTER 22 and replace with the following:

M2201 SPECIAL PIPING AND STORAGE SYSTEMS. Special laws, regulations, or both include requirements for oil tanks, piping, fittings, connections, installation, and oil pumps and valves. Refer to M.G.L. c. 148, § 13, M.G.L. c. 148, § 37, 527 CMR: *Board of Fire Prevention Regulations*, 522 CMR: *Board of Boiler Rules*, and EPA regulations. See also 780 CMR 51.00 for tank structural design.

Chapter 23: SOLAR THERMAL ENERGY SYSTEMS

M2301.1 Add two notes to the end of the section as follows:

NOTES:

1. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

CHAPTER 17 - COMBUSTION AIR - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

M1601.4.6 Revise the first paragraph of the subsection as follows:

M1601.4.6 Duct Insulation. Duct insulation shall be installed in accordance with the following requirements and the requirements of Chapter 11 of 780 CMR 51.00. Where conflict exists between the requirements of this section and Chapter 11 of 780 CMR 51.00, the requirements set forth in Chapter 11 of 780 CMR 51.00 shall govern.

Chapter 17: COMBUSTION AIR

M1701.1 Revise the section as follows:

M1701.1 Scope. Solid fuel-burning appliances shall be provided with combustion air in accordance with the appliance manufacturer's installation instructions. Oil-fired appliances shall be provided with combustion air in accordance with 527 CMR: *Board of Fire Prevention Regulations*. The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct vent appliances. The requirements for combustion and dilution air for gas-fired appliances shall be in accordance with Chapter 24 of 780 CMR 51.00.

Chapter 18: CHIMNEY AND VENTS

M1801.1 Delete the last sentence in the paragraph.

M1801.11 Delete the exception to requirement 1.

M1801.12 Add the following exception to the subsection:

Exception: Unless common connection is allowed by 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters* or 527 CMR: *Board of Fire Prevention Regulations*. If allowed, the common flue shall be of such size to serve all appliances connected if such appliances were operated simultaneously. Note that 248 CMR and 527 CMR are enforced by gas inspectors and the heads of fire departments, respectively.

Chapter 19: SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS (no amendments)

Chapter 20: BOILERS AND WATER HEATERS (no amendments)

Chapter 21: HYDRONIC PIPING

M2101.3 Revise the subsection as follows:

M2101.3 Protection of Potable Water. The potable water system shall be protected from backflow in accordance with the provisions of the Department of Environmental Protection and/or the local water purveyor, as applicable.

Chapter 22: SPECIAL PIPING AND STORAGE SYSTEMS

Delete all sections of CHAPTER 22 and replace with the following:

M2201 SPECIAL PIPING AND STORAGE SYSTEMS. Special laws, regulations, or both include requirements for oil tanks, piping, fittings, connections, installation, and oil pumps and valves. Refer to M.G.L. c. 148, § 13, M.G.L. c. 148, § 37, 527 CMR: *Board of Fire Prevention Regulations*, 522 CMR: *Board of Boiler Rules*, and EPA regulations. See also 780 CMR 51.00 for tank structural design.

Chapter 23: SOLAR THERMAL ENERGY SYSTEMS

M2301.1 Add two notes to the end of the section as follows:

NOTES:

1. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

CHAPTER 18 – CHIMNEYS & VENTS – AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

M1601.4.6 Revise the first paragraph of the subsection as follows:

M1601.4.6 Duct Insulation. Duct insulation shall be installed in accordance with the following requirements and the requirements of Chapter 11 of 780 CMR 51.00. Where conflict exists between the requirements of this section and Chapter 11 of 780 CMR 51.00, the requirements set forth in Chapter 11 of 780 CMR 51.00 shall govern.

Chapter 17: COMBUSTION AIR

M1701.1 Revise the section as follows:

M1701.1 Scope. Solid fuel-burning appliances shall be provided with combustion air in accordance with the appliance manufacturer's installation instructions. Oil-fired appliances shall be provided with combustion air in accordance with 527 CMR: *Board of Fire Prevention Regulations*. The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct vent appliances. The requirements for combustion and dilution air for gas-fired appliances shall be in accordance with Chapter 24 of 780 CMR 51.00.

Chapter 18: CHIMNEY AND VENTS

M1801.1 Delete the last sentence in the paragraph.

M1801.11 Delete the exception to requirement 1.

M1801.12 Add the following exception to the subsection:

Exception: Unless common connection is allowed by 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters* or 527 CMR: *Board of Fire Prevention Regulations*. If allowed, the common flue shall be of such size to serve all appliances connected if such appliances were operated simultaneously. Note that 248 CMR and 527 CMR are enforced by gas inspectors and the heads of fire departments, respectively.

Chapter 19: SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS (no amendments)

Chapter 20: BOILERS AND WATER HEATERS (no amendments)

Chapter 21: HYDRONIC PIPING

M2101.3 Revise the subsection as follows:

M2101.3 Protection of Potable Water. The potable water system shall be protected from backflow in accordance with the provisions of the Department of Environmental Protection and/or the local water purveyor, as applicable.

Chapter 22: SPECIAL PIPING AND STORAGE SYSTEMS

Delete all sections of CHAPTER 22 and replace with the following:

M2201 SPECIAL PIPING AND STORAGE SYSTEMS. Special laws, regulations, or both include requirements for oil tanks, piping, fittings, connections, installation, and oil pumps and valves. Refer to M.G.L. c. 148, § 13, M.G.L. c. 148, § 37, 527 CMR: *Board of Fire Prevention Regulations*, 522 CMR: *Board of Boiler Rules*, and EPA regulations. See also 780 CMR 51.00 for tank structural design.

Chapter 23: SOLAR THERMAL ENERGY SYSTEMS

M2301.1 Add two notes to the end of the section as follows:

NOTES:

1. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

CHAPTER 19 – SPECIAL APPLIANCES, EQUIPMENT & SYSTEMS – NO AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

M1601.4.6 Revise the first paragraph of the subsection as follows:

M1601.4.6 Duct Insulation. Duct insulation shall be installed in accordance with the following requirements and the requirements of Chapter 11 of 780 CMR 51.00. Where conflict exists between the requirements of this section and Chapter 11 of 780 CMR 51.00, the requirements set forth in Chapter 11 of 780 CMR 51.00 shall govern.

Chapter 17: COMBUSTION AIR

M1701.1 Revise the section as follows:

M1701.1 Scope. Solid fuel-burning appliances shall be provided with combustion air in accordance with the appliance manufacturer's installation instructions. Oil-fired appliances shall be provided with combustion air in accordance with 527 CMR: *Board of Fire Prevention Regulations*. The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct vent appliances. The requirements for combustion and dilution air for gas-fired appliances shall be in accordance with Chapter 24 of 780 CMR 51.00.

Chapter 18: CHIMNEY AND VENTS

M1801.1 Delete the last sentence in the paragraph.

M1801.11 Delete the exception to requirement 1.

M1801.12 Add the following exception to the subsection:

Exception: Unless common connection is allowed by 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters* or 527 CMR: *Board of Fire Prevention Regulations*. If allowed, the common flue shall be of such size to serve all appliances connected if such appliances were operated simultaneously. Note that 248 CMR and 527 CMR are enforced by gas inspectors and the heads of fire departments, respectively.

Chapter 19: SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS (no amendments)

Chapter 20: BOILERS AND WATER HEATERS (no amendments)

Chapter 21: HYDRONIC PIPING

M2101.3 Revise the subsection as follows:

M2101.3 Protection of Potable Water. The potable water system shall be protected from backflow in accordance with the provisions of the Department of Environmental Protection and/or the local water purveyor, as applicable.

Chapter 22: SPECIAL PIPING AND STORAGE SYSTEMS

Delete all sections of CHAPTER 22 and replace with the following:

M2201 SPECIAL PIPING AND STORAGE SYSTEMS. Special laws, regulations, or both include requirements for oil tanks, piping, fittings, connections, installation, and oil pumps and valves. Refer to M.G.L. c. 148, § 13, M.G.L. c. 148, § 37, 527 CMR: *Board of Fire Prevention Regulations*, 522 CMR: *Board of Boiler Rules*, and EPA regulations. See also 780 CMR 51.00 for tank structural design.

Chapter 23: SOLAR THERMAL ENERGY SYSTEMS

M2301.1 Add two notes to the end of the section as follows:

NOTES:

1. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

CHAPTER 20 – BOILERS & HEATERS – NO AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

M1601.4.6 Revise the first paragraph of the subsection as follows:

M1601.4.6 Duct Insulation. Duct insulation shall be installed in accordance with the following requirements and the requirements of Chapter 11 of 780 CMR 51.00. Where conflict exists between the requirements of this section and Chapter 11 of 780 CMR 51.00, the requirements set forth in Chapter 11 of 780 CMR 51.00 shall govern.

Chapter 17: COMBUSTION AIR

M1701.1 Revise the section as follows:

M1701.1 Scope. Solid fuel-burning appliances shall be provided with combustion air in accordance with the appliance manufacturer's installation instructions. Oil-fired appliances shall be provided with combustion air in accordance with 527 CMR: *Board of Fire Prevention Regulations*. The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct vent appliances. The requirements for combustion and dilution air for gas-fired appliances shall be in accordance with Chapter 24 of 780 CMR 51.00.

Chapter 18: CHIMNEY AND VENTS

M1801.1 Delete the last sentence in the paragraph.

M1801.11 Delete the exception to requirement 1.

M1801.12 Add the following exception to the subsection:

Exception: Unless common connection is allowed by 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters* or 527 CMR: *Board of Fire Prevention Regulations*. If allowed, the common flue shall be of such size to serve all appliances connected if such appliances were operated simultaneously. Note that 248 CMR and 527 CMR are enforced by gas inspectors and the heads of fire departments, respectively.

Chapter 19: SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS (no amendments)

Chapter 20: BOILERS AND WATER HEATERS (no amendments)

Chapter 21: HYDRONIC PIPING

M2101.3 Revise the subsection as follows:

M2101.3 Protection of Potable Water. The potable water system shall be protected from backflow in accordance with the provisions of the Department of Environmental Protection and/or the local water purveyor, as applicable.

Chapter 22: SPECIAL PIPING AND STORAGE SYSTEMS

Delete all sections of CHAPTER 22 and replace with the following:

M2201 SPECIAL PIPING AND STORAGE SYSTEMS. Special laws, regulations, or both include requirements for oil tanks, piping, fittings, connections, installation, and oil pumps and valves. Refer to M.G.L. c. 148, § 13, M.G.L. c. 148, § 37, 527 CMR: *Board of Fire Prevention Regulations*, 522 CMR: *Board of Boiler Rules*, and EPA regulations. See also 780 CMR 51.00 for tank structural design.

Chapter 23: SOLAR THERMAL ENERGY SYSTEMS

M2301.1 Add two notes to the end of the section as follows:

NOTES:

1. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

CHAPTER 21 - HYDRONIC PIPING - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following 2015 *International Codes as published by the International Code Council (ICC)*.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are ***unofficial versions*** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

M1601.4.6 Revise the first paragraph of the subsection as follows:

M1601.4.6 Duct Insulation. Duct insulation shall be installed in accordance with the following requirements and the requirements of Chapter 11 of 780 CMR 51.00. Where conflict exists between the requirements of this section and Chapter 11 of 780 CMR 51.00, the requirements set forth in Chapter 11 of 780 CMR 51.00 shall govern.

Chapter 17: COMBUSTION AIR

M1701.1 Revise the section as follows:

M1701.1 Scope. Solid fuel-burning appliances shall be provided with combustion air in accordance with the appliance manufacturer's installation instructions. Oil-fired appliances shall be provided with combustion air in accordance with 527 CMR: *Board of Fire Prevention Regulations*. The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct vent appliances. The requirements for combustion and dilution air for gas-fired appliances shall be in accordance with Chapter 24 of 780 CMR 51.00.

Chapter 18: CHIMNEY AND VENTS

M1801.1 Delete the last sentence in the paragraph.

M1801.11 Delete the exception to requirement 1.

M1801.12 Add the following exception to the subsection:

Exception: Unless common connection is allowed by 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters* or 527 CMR: *Board of Fire Prevention Regulations*. If allowed, the common flue shall be of such size to serve all appliances connected if such appliances were operated simultaneously. Note that 248 CMR and 527 CMR are enforced by gas inspectors and the heads of fire departments, respectively.

Chapter 19: SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS (no amendments)

Chapter 20: BOILERS AND WATER HEATERS (no amendments)

Chapter 21: HYDRONIC PIPING

M2101.3 Revise the subsection as follows:

M2101.3 Protection of Potable Water. The potable water system shall be protected from backflow in accordance with the provisions of the Department of Environmental Protection and/or the local water purveyor, as applicable.

Chapter 22: SPECIAL PIPING AND STORAGE SYSTEMS

Delete all sections of CHAPTER 22 and replace with the following:

M2201 SPECIAL PIPING AND STORAGE SYSTEMS. Special laws, regulations, or both include requirements for oil tanks, piping, fittings, connections, installation, and oil pumps and valves. Refer to M.G.L. c. 148, § 13, M.G.L. c. 148, § 37, 527 CMR: *Board of Fire Prevention Regulations*, 522 CMR: *Board of Boiler Rules*, and EPA regulations. See also 780 CMR 51.00 for tank structural design.

Chapter 23: SOLAR THERMAL ENERGY SYSTEMS

M2301.1 Add two notes to the end of the section as follows:

NOTES:

1. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

CHAPTER 22 – SPECIAL PIPING & STORAGE SYSTEMS - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

M1601.4.6 Revise the first paragraph of the subsection as follows:

M1601.4.6 Duct Insulation. Duct insulation shall be installed in accordance with the following requirements and the requirements of Chapter 11 of 780 CMR 51.00. Where conflict exists between the requirements of this section and Chapter 11 of 780 CMR 51.00, the requirements set forth in Chapter 11 of 780 CMR 51.00 shall govern.

Chapter 17: COMBUSTION AIR

M1701.1 Revise the section as follows:

M1701.1 Scope. Solid fuel-burning appliances shall be provided with combustion air in accordance with the appliance manufacturer's installation instructions. Oil-fired appliances shall be provided with combustion air in accordance with 527 CMR: *Board of Fire Prevention Regulations*. The methods of providing combustion air in this chapter do not apply to fireplaces, fireplace stoves and direct vent appliances. The requirements for combustion and dilution air for gas-fired appliances shall be in accordance with Chapter 24 of 780 CMR 51.00.

Chapter 18: CHIMNEY AND VENTS

M1801.1 Delete the last sentence in the paragraph.

M1801.11 Delete the exception to requirement 1.

M1801.12 Add the following exception to the subsection:

Exception: Unless common connection is allowed by 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters* or 527 CMR: *Board of Fire Prevention Regulations*. If allowed, the common flue shall be of such size to serve all appliances connected if such appliances were operated simultaneously. Note that 248 CMR and 527 CMR are enforced by gas inspectors and the heads of fire departments, respectively.

Chapter 19: SPECIAL APPLIANCES, EQUIPMENT AND SYSTEMS (no amendments)

Chapter 20: BOILERS AND WATER HEATERS (no amendments)

Chapter 21: HYDRONIC PIPING

M2101.3 Revise the subsection as follows:

M2101.3 Protection of Potable Water. The potable water system shall be protected from backflow in accordance with the provisions of the Department of Environmental Protection and/or the local water purveyor, as applicable.

Chapter 22: SPECIAL PIPING AND STORAGE SYSTEMS

Delete all sections of CHAPTER 22 and replace with the following:

M2201 SPECIAL PIPING AND STORAGE SYSTEMS. Special laws, regulations, or both include requirements for oil tanks, piping, fittings, connections, installation, and oil pumps and valves. Refer to M.G.L. c. 148, § 13, M.G.L. c. 148, § 37, 527 CMR: *Board of Fire Prevention Regulations*, 522 CMR: *Board of Boiler Rules*, and EPA regulations. See also 780 CMR 51.00 for tank structural design.

Chapter 23: SOLAR THERMAL ENERGY SYSTEMS

M2301.1 Add two notes to the end of the section as follows:

NOTES:

1. Additional requirements for boilers and other pressure vessels may be found in M.G.L. c. 146 and 522 CMR: *Board of Boiler Rules*, as applicable.

CHAPTER 24 – FUEL GAS - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

2. Where solar thermal systems involve matters of potable water and/or wastewater, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 24: FUEL GAS

For the fuel gas provisions of Chapter 24 of 780 CMR 51.00, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 25 THROUGH 33: PLUMBING

For the plumbing provisions of Chapters 25 through 33 of 780 CMR 51.00, *see* 248 CMR 10.00: *Uniform State Plumbing Code*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 34 THROUGH 43: ELECTRICAL

For the electrical provisions of Chapters 34 through 43 of 780 CMR 51.00, *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. Provisions of 527 CMR 12.00 related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapter 44: REFERENCED STANDARDS (no amendments)

APPENDICES

Appendix A: SIZING AND CAPACITIES OF GAS PIPING (Reserved)

Appendix B: SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS (Reserved)

Appendix C: EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS (Reserved)

Appendix D: RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEMS (Reserved)

Appendix E: MANUFACTURED HOUSING USED AS DWELLINGS (Adopted as revised)

AE102.2 Revise the section as follows:

AE102.2 Additions, Alterations or Repairs. Additions, alterations and repairs made to a manufactured home shall conform to 780 CMR 51.00 and the specialized codes.

AE201 Add two sentences to the definition of "MANUFACTURED HOME" as follows:

A manufactured home (mobile home) is not a manufactured building. For manufactured buildings, *see* 780 CMR 110.R3.

AE301.4 Reserved

AE302 through AE307 Reserved

AE402 Reserved

AE505 Reserved

AE507 Reserved

CHAPTER 25 THROUGH 33 – PLUMBING - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

2. Where solar thermal systems involve matters of potable water and/or wastewater, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 24: FUEL GAS

For the fuel gas provisions of Chapter 24 of 780 CMR 51.00, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 25 THROUGH 33: PLUMBING

For the plumbing provisions of Chapters 25 through 33 of 780 CMR 51.00, *see* 248 CMR 10.00: *Uniform State Plumbing Code*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 34 THROUGH 43: ELECTRICAL

For the electrical provisions of Chapters 34 through 43 of 780 CMR 51.00, *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. Provisions of 527 CMR 12.00 related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapter 44: REFERENCED STANDARDS (no amendments)

APPENDICES

Appendix A: SIZING AND CAPACITIES OF GAS PIPING (Reserved)

Appendix B: SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS (Reserved)

Appendix C: EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS (Reserved)

Appendix D: RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEMS (Reserved)

Appendix E: MANUFACTURED HOUSING USED AS DWELLINGS (Adopted as revised)

AE102.2 Revise the section as follows:

AE102.2 Additions, Alterations or Repairs. Additions, alterations and repairs made to a manufactured home shall conform to 780 CMR 51.00 and the specialized codes.

AE201 Add two sentences to the definition of "MANUFACTURED HOME" as follows:

A manufactured home (mobile home) is not a manufactured building. For manufactured buildings, *see* 780 CMR 110.R3.

AE301.4 Reserved

AE302 through AE307 Reserved

AE402 Reserved

AE505 Reserved

AE507 Reserved

CHAPTER 34 THROUGH 43 - ELECTRICAL - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

2. Where solar thermal systems involve matters of potable water and/or wastewater, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 24: FUEL GAS

For the fuel gas provisions of Chapter 24 of 780 CMR 51.00, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 25 THROUGH 33: PLUMBING

For the plumbing provisions of Chapters 25 through 33 of 780 CMR 51.00, *see* 248 CMR 10.00: *Uniform State Plumbing Code*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 34 THROUGH 43: ELECTRICAL

For the electrical provisions of Chapters 34 through 43 of 780 CMR 51.00, *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. Provisions of 527 CMR 12.00 related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapter 44: REFERENCED STANDARDS (no amendments)

APPENDICES

Appendix A: SIZING AND CAPACITIES OF GAS PIPING (Reserved)

Appendix B: SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS (Reserved)

Appendix C: EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS (Reserved)

Appendix D: RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEMS (Reserved)

Appendix E: MANUFACTURED HOUSING USED AS DWELLINGS (Adopted as revised)

AE102.2 Revise the section as follows:

AE102.2 Additions, Alterations or Repairs. Additions, alterations and repairs made to a manufactured home shall conform to 780 CMR 51.00 and the specialized codes.

AE201 Add two sentences to the definition of "MANUFACTURED HOME" as follows:

A manufactured home (mobile home) is not a manufactured building. For manufactured buildings, *see* 780 CMR 110.R3.

AE301.4 Reserved

AE302 through AE307 Reserved

AE402 Reserved

AE505 Reserved

AE507 Reserved

CHAPTER 44 - REFERENCED STANDARDS - NO AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

2. Where solar thermal systems involve matters of potable water and/or wastewater, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 24: FUEL GAS

For the fuel gas provisions of Chapter 24 of 780 CMR 51.00, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 25 THROUGH 33: PLUMBING

For the plumbing provisions of Chapters 25 through 33 of 780 CMR 51.00, *see* 248 CMR 10.00: *Uniform State Plumbing Code*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 34 THROUGH 43: ELECTRICAL

For the electrical provisions of Chapters 34 through 43 of 780 CMR 51.00, *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. Provisions of 527 CMR 12.00 related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapter 44: REFERENCED STANDARDS (no amendments)

APPENDICES

Appendix A: SIZING AND CAPACITIES OF GAS PIPING (Reserved)

Appendix B: SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS (Reserved)

Appendix C: EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS (Reserved)

Appendix D: RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEMS (Reserved)

Appendix E: MANUFACTURED HOUSING USED AS DWELLINGS (Adopted as revised)

AE102.2 Revise the section as follows:

AE102.2 Additions, Alterations or Repairs. Additions, alterations and repairs made to a manufactured home shall conform to 780 CMR 51.00 and the specialized codes.

AE201 Add two sentences to the definition of "MANUFACTURED HOME" as follows:

A manufactured home (mobile home) is not a manufactured building. For manufactured buildings, *see* 780 CMR 110.R3.

AE301.4 Reserved

AE302 through AE307 Reserved

AE402 Reserved

AE505 Reserved

AE507 Reserved

CHAPTERS 110.R1 through 110.R7

Chapters 110.R1 through 110.R7 are special regulations particular to certain Massachusetts programs relating to:

- **Licensing Concrete Testing Laboratories - 110.R1**
- **Licensing Concrete Field Testing Technicians - 110.R2**
- **Approving Manufactured Buildings - 110.R3**
- **Registering Native Lumber Producers - 110.R4**
- **Licensing Construction Supervisors - 110.R5**
- **110.R6 is a reserved chapter**
- **Certifying Building Code Enforcement Officials - 110.R5**

These regulations are unique to Massachusetts.

780 CMR 110.00: SPECIAL REGULATIONS

780 CMR 110.R1: CONCRETE TESTING LABORATORIES LICENSING

(Note: 780 CMR 110.R1 is unique to Massachusetts)

110.R1.1 Title. The BBRS adopts the rules and regulations for concrete testing laboratories contained as 780 CMR 110.R1.

110.R1.2 Scope. The provisions of 780 CMR 110.R1 shall govern the registration of laboratories that test concrete and concrete aggregates utilized in the construction of buildings and structures falling under construction control.

110.R1.3 Definitions. The following words and terms shall, for the purpose of 780 CMR 110.R1, have the meanings shown:

ACCREDITATION AUTHORITY. An entity such as the National Institute of Standards and Technology, the Cement and Concrete Reference Laboratory ("CCRL"), AASHTO Materials Reference Laboratory ("AMRL"), registered design professional, or another agency designated by the BBRS that field examines and evaluates concrete testing laboratories. Some accreditation authority such as AMRL may have limited evaluation and testing authority relative to 780 CMR 110.R1.

BRANCH LABORATORY. A concrete testing laboratory physically removed from the principal laboratory. A branch laboratory may have project laboratories.

CONCRETE TESTING LABORATORY. A proprietorship, corporation, partnership or agency which conforms to the requirements of ASTM E 329 as modified by 780 CMR 110.R1. A concrete testing laboratory shall mean the principal laboratory, branch laboratory or project laboratory unless otherwise specified, and shall be capable of testing as a minimum concrete and concrete aggregate.

DPL. The Massachusetts Division of Professional Licensure.

LABORATORY. A concrete testing laboratory.

OFFICE. The Office of Public Safety and Inspections.

PRINCIPAL LABORATORY. A concrete testing laboratory that may have branch and project laboratories.

PROJECT LABORATORY. A temporary onsite concrete testing laboratory for a specific project under the direction of a principal or branch laboratory.

REPORT. A field examination and evaluation of a laboratory which indicates compliance with 780 CMR 110.R1. All findings of noncompliance shall be resolved as indicated by either the seal of a registered design professional or approval by an accreditation authority.

110.R1.4 Registration. A laboratory shall each be registered by the BBRS in accordance with 780 CMR 110.R1. An entity seeking to register as a new laboratory or seeking to renew a registration shall submit a standard application to the Office for approval demonstrating that its facilities, equipment, personnel and procedures meet the requirements of 780 CMR 110.R1. The application will include, but not be limited to: a report(s) not older than three years and a fee. A registration and laboratory classification (principal, branch or project) shall be issued for an application that meets the requirements of 780 CMR 110.R1, or the Office shall notify the applicant of the reasons of refusal. Registrations first issued shall be valid for a period of one, but not to exceed two years and shall expire on December 31st. Renewals periods of registrations shall be one year and shall expire on December 31st.

110.R1: continued

110.R1.4.1 Project Submittals. A laboratory involved with projects having structures subject to construction control as required in 780 CMR 1.00: *Scope and Administration* shall submit notice of proof of registration to the project owner for submittal to the building official at the time of the building permit application. Proof of registration shall also be submitted by any new or successor laboratory prior to engaging in work during the course of a project. A laboratory that plans to terminate services on a project shall notify the building official and project owner in writing three days prior to terminating services.

110.R1.5 Qualifications. Principal laboratory and branch laboratories shall be evaluated by an accreditation authority prior to applying for a registration and at least every three years to ensure the laboratory equipment, personnel and procedures meet the requirement of 780 CMR 110.R1. The accreditation authority shall notify the laboratory of the evaluation date. The accreditation authority will issue a report to the laboratory with all audit findings. Reports received by laboratories shall be submitted to BBRS, through its designee the Office, within ten days of receipt. Audit findings shall be corrected and approved by an accreditation authority within 30 days and evidence of same submitted to the Office.

110.R1.5.1 Standards. Laboratory equipment, personnel and procedures shall conform to the standards of ASTM E 329 and 780 CMR 110.R1, narrow to the testing of concrete and its constituent materials only.

110.R1.5.2 Equipment. Compression testing machines shall be calibrated and verified, with equipment traceable to the National Institute of Standards and Technology, at least annually and also when a laboratory changes location or as required by the BBRS, and the calibration results submitted to the BBRS.

110.R1.5.3 Personnel. Each principal and branch laboratory shall have a director of testing services, lab supervisor and field supervisor. An individual that meets all three qualifications may fill more than one position at a laboratory, but may not fill positions concurrently at a separate laboratory. A project laboratory shall have a full time lab supervisor. Each individual shall submit credentials and qualifications under penalty of perjury with signature notarized. Individuals applying for registration in more than one category shall file separate applications for each category. Credentials shall be filed within 30 days of employment. The director of testing shall notify the BBRS within seven days of any vacancy of any position. Any vacant position shall be filled within 30 days.

A director of testing shall be a full time employee of a laboratory, shall be able to interpret the results of tests on concrete and concrete aggregates as stated in ASTM E 329, and shall be qualified in accordance with one of the following requirements:

1. A professional engineer registered in the Commonwealth with at least five years of experience in responsible charge of work related to structural engineering, construction engineering or construction materials testing;
2. A bachelor's degree in engineering from an accredited institution and an additional total of three years experience performing tests on concrete and concrete materials which shall include two years as a laboratory technician or supervisor; or
3. At least eight years' experience including five years as a lab technician or supervisor.

A lab supervisor shall have at least five years of experience performing tests on construction materials including concrete and concrete aggregates and be ACI-certified as a Concrete Laboratory Testing Technician-Level 2 and ACI-certified Aggregate Testing Technician - Level 2, and shall maintain such certification.

A field supervisor shall have at least five years of experience performing tests on construction materials including concrete and be ACI-certified as a Concrete Field Testing Technician - Grade 1 and shall maintain such certification.

110.R1.6 Deficiencies. Any laboratory that does not meet the requirements of 780 CMR 110.R1.4 to 110.R1.5 shall notify the Office within ten days of said deficiency. Deficiencies shall be corrected within 30 days as proven by a laboratory affidavit sent to the Office on the standard affidavit form. Failure to notify the Office or to correct said deficiencies in the specified time frames shall deem the laboratory as noncompliant and it shall immediately cease testing of concrete and concrete materials subject to construction control.

110.R1: continued

110.R1.7 Revocation and Suspension. The BBRS may suspend or revoke the registration of any laboratory found to be in noncompliance with 780 CMR, or the standard of good practice.

Notice of suspension, revocation or refusal to renew a registration shall be in writing with the reasons clearly stated, and served in accordance 780 CMR 1.00: *Scope and Administration*. Prior to issuance of a suspension, revocation or refusal to renew a registration, written notice of such intent shall be served by the BBRS through its designee the Office, in accordance 780 CMR 1.00. Upon registration, suspension, or revocation, the laboratory shall immediately cease testing of concrete and concrete materials for structures subject to construction control.

110.R1.8 Appeals. Any laboratory or individual aggrieved by the suspension or revocation of a registration or by an interpretation, order, requirement, direction or failure to act under 780 CMR 110.R1 may appeal to the Building Code Appeals Board as provided in 780 CMR 1.00: *Scope and Administration*. However, entry of an appeal shall not stay such revocation or suspension unless so ordered by the Building Code Appeals Board in a preliminary hearing conducted expressly for the purpose of a stay.

NON-TEXT PAGE

CHAPTERS 52.00 THROUGH 109.00 – RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS

(780 CMR 52.00 THROUGH 109.00: RESERVED)

(PAGES 261 THROUGH 300 ARE RESERVED FOR FUTURE USE.)

CHAPTERS 110.R1 through 110.R7

Chapters 110.R1 through 110.R7 are special regulations particular to certain Massachusetts programs relating to:

- **Licensing Concrete Testing Laboratories - 110.R1**
- **Licensing Concrete Field Testing Technicians - 110.R2**
- **Approving Manufactured Buildings - 110.R3**
- **Registering Native Lumber Producers - 110.R4**
- **Licensing Construction Supervisors - 110.R5**
- **110.R6 is a reserved chapter**
- **Certifying Building Code Enforcement Officials - 110.R5**

These regulations are unique to Massachusetts.

110.R2: CONCRETE FIELD TESTING TECHNICIAN LICENSING

(Note: 780 CMR 110.R2 is unique to Massachusetts)

110.R2.1 Scope. The provisions of 780 CMR 110.R2 shall govern concrete field testing technician licensing.

110.R2.2 Definitions. Unless otherwise expressly stated in 780 CMR, the following terms, for the purpose of 780 CMR 110.R2, shall have the meaning indicated in 780 CMR 110.R2.1.2.

CONCRETE FIELD TESTING TECHNICIAN. A person issued a Grade 1 license by the American Concrete Institute ("ACI") authorizing such person to test/inspect concrete.

TESTING AGENCY. An official Local Sponsoring Group of ACI.

110.R2.3 Licensing. All personnel engaged in field testing/inspection of concrete for use in buildings and structures subject to the construction control provisions of 780 CMR 1.00: *Scope and Administration* shall be licensed by ACI as a Concrete Field Testing Technician - Grade 1 in accordance with ACI's "Certification Policies for Concrete Field Testing Technician - Grade 1" and 780 CMR 110.R2.

110.R2.4 Application for Licensing. Applicants shall contact and follow the policies and procedures of the Testing Agency and ACI to be licensed in accordance with 780 CMR 110.R2.

110.R2.5 Examination. Applicants shall contact the Testing Agency regarding applications, fees and exam schedules. The exam includes a written and practical "hands-on" component.

110.R2.6 Notification of Examination and Examination Results. The Testing Agency provides the time and place for the examination. ACI provides exam results directly to the applicant.

110.R2.7 Fees. Application, testing and license fees are paid to the Testing Agency and/or ACI.

110.R2.8 Renewals. Licenses shall be renewed according to the policies of ACI.

NON-TEXT PAGE

CHAPTERS 110.R1 through 110.R7

Chapters 110.R1 through 110.R7 are special regulations particular to certain Massachusetts programs relating to:

- **Licensing Concrete Testing Laboratories - 110.R1**
- **Licensing Concrete Field Testing Technicians - 110.R2**
- **Approving Manufactured Buildings - 110.R3**
- **Registering Native Lumber Producers - 110.R4**
- **Licensing Construction Supervisors - 110.R5**
- **110.R6 is a reserved chapter**
- **Certifying Building Code Enforcement Officials - 110.R5**

These regulations are unique to Massachusetts.

110.R3: MANUFACTURED BUILDINGS

(Note: 780 CMR 110.R3 is unique to Massachusetts)

110.R3.1: Administration

110.R3.1.1 Title. The BBRS adopts the rules and regulations for manufactured buildings, manufactured building components and manufactured homes contained herein as 780 CMR 110.R3.

110.R3.1.2 Scope. 780 CMR 110.R3 shall govern the design, manufacture, handling, storage, transportation, relocation, and installation of manufactured buildings, manufactured building components, and modular homes, and hereinafter referred to as product, intended for installation in the Commonwealth and/or manufactured in the Commonwealth for shipment to any other state in which such product and the labels thereon are accepted. Subject to local zoning ordinances and by-laws, product may be sold for, delivered to, or installed on, building sites located in any location in the Commonwealth if such products have been approved and certified pursuant to 780 CMR 110.R3.

110.R3.1.3 Administration and Enforcement. The BBRS, through its designee the Office, shall administer and enforce the state requirements of 780 CMR 110.R3 and building officials shall administer and enforce the local requirements of 780 CMR 110.R3. The boards which regulate the specialized codes shall have enforcement authority of product specific to its specialized code. No person, firm or corporation shall offer for sale or rental, or sell or rent, any product subject to any provisions of 780 CMR 110.R3 unless it conforms with the applicable provisions of 780 CMR 110.R3.

Where an uncertified building was constructed under a manufactured building program of another state and approved under such program, a TPIA shall prepare a report based on review of the plans and specifications and inspection of the building to assure that said plans and specifications meet the requirements of 780 CMR 13.00: *Energy Efficiency* and submit such to the Office for review and approval.

When the occupancy classification of a relocated manufactured building is proposed to be changed, a TPIA shall inspect the building, including any disassembly necessary, to determine whether compliance may be achieved for a change of occupancy classification in accordance with the requirements of Chapter 10 of 780 CMR 34.00: *Existing Buildings*. If factory plans are available, then disassembly is not required to the extent that the factory plans can be reasonably verified to reflect the actual construction.

Exception: Relocatable buildings previously approved with a prior Massachusetts insignia may be relocated into or within the state, subject to local approval for the design loads for the location, provided that no plan, specification, reconfiguration, occupancy type or use group changes are made. The insignia numbers, design loads, and plans based on time of manufacture shall be provided to the building official at time of permit application and prior to installation.

110.R3.1.4 Authorization of Third-party Inspections Agencies. The BBRS may register TPIAs based on recommendations by the Office.

110.R3.2: Definitions

110.R3.2.1 General. Unless otherwise expressly stated in 780 CMR, the following terms shall, for the purpose of 780 CMR 110.R3, have the meaning as follows:

ALTERATION. Any construction, other than ordinary repairs of product that deviate from the approved product.

APPLICABLE CODES. 780 CMR and specialized codes if applicable.

CERTIFICATION. Any manufacturer or product which meets the provisions of 780 CMR 110.R3 is deemed to be certified.

CSL. A construction supervisor license. *See* also construction supervisor.

110.R3: continued

DEALER. Any individual, organization or firm engaged in the retail selling, or offering for sale, brokering, or distribution of product, primarily to a person who in good faith, purchases or leases such product for purposes other than resale.

DPL. The Massachusetts Division of Professional Licensure.

INSTALLATION. The process of affixing, or assembling product on the building site, and connecting it to utilities, and/or to an existing building. Installation may also mean the connecting of two or more manufactured building or housing units designed and approved to be so connected.

INSTALLER. An individual who, on the basis of training and experience, has been certified by a manufacturer as competent to supervise the placement and connection required to install product of that manufacturer. Said certification by the manufacturer shall be in writing; additionally, the certified installer shall possess picture identification in the form of a driver's license or other picture identification acceptable to the building official.

LABEL. An approved device or seal evidencing certification of product in accordance with 780 CMR 110.R3.

LOCAL ENFORCEMENT AGENCY. A department or agency in a municipality charged with the enforcement of 780 CMR and appropriate specialized codes.

MANUFACTURED BUILDING. Any manufactured building which has concealed elements, such as electrical, mechanical, plumbing, fire protection, insulation, and other systems affecting health and safety, and which is manufactured, constructed, relocated, reconfigured, and/or assembled in accordance with 780 CMR and pertinent regulations, in manufacturing facilities, on or off the building site. Also, any manufactured building as defined above which does not have concealed elements, but which has been approved by the BBRS at the request of the manufacturer.

MANUFACTURED BUILDING COMPONENT. Any manufactured subsystem, manufactured subassembly, or other system designed for use in or as part of a structure having concealed elements such as electrical, mechanical, plumbing and fire protection systems and other systems affecting health and safety.

MANUFACTURER. A business entity approved to manufacture product.

MANUFACTURED HOMES. Manufactured homes regulated under the federal Housing and Urban Development standards as defined in 24 CFR Part 3280.2, which are not within the scope of 780 CMR 110.R3.

MODULAR HOME. Any R-Use manufactured building.

OFFICE. The Office of Public Safety and Inspections.

PLANS. Building plans, specifications and documentation of product, which may include structural, electrical, mechanical, plumbing and fire protection systems and other systems affecting health and safety, including variations which are submitted as part of the building system.

PRODUCT. A manufactured building, manufactured building component, modular home or relocatable building.

QUALITY ASSURANCE MANUAL. The manual as outlined in section 3 of 780 CMR 110.R3 which contains the quality assurance process specific to a manufacturer and approved by a TPIA.

110.R3: continued

RELOCATABLE BUILDING. A partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites.

SPECIALIZED CODES. See 780 CMR 1.00: *Scope and Administration*.

THIRD PARTY INSPECTION AGENCY ("TPIA"). A TPIA registered in accordance with the requirements of 780 CMR 110.R3 and retained by the manufacturer and approved by the Office to perform inspection, evaluation, and certification of manufacturers and product.

110.R3.3: Certification of Manufacturer

110.R3.3.1 General. An entity which maintains a quality assurance program in conformance with a quality assurance manual in accordance with this section may apply to the Office for certification as a manufacturer. An entity seeking to become a manufacturer or a manufacturer seeking to renew a certification shall submit an application to the Office for approval. These applications will include, but not be limited to: a quality assurance manual and a fee. A certification shall be issued for an application that meets the requirements of 780 CMR 110.R3, or the Offices shall notify the applicant of the reasons for refusal. Certifications first issued and renewals of certifications shall be valid for a period of one year.

110.R3.3.2 Quality Assurance Manual. The quality assurance manual of a manufacturer shall consist of the requirements contained in 780 CMR 110.R3. It is the responsibility of the manufacturer to execute every aspect of this manual. The manufacturer shall continue to be responsible for all corrective actions required and the contractual relationship between the manufacturer and the TPIA shall not diminish such responsibility. The manufacturer shall cooperate with the TPIA by providing all necessary reports, information, documents, records, facilities, equipment, samples and other assistance for assuring compliance with 780 CMR 110.R3. The manual shall be comprehensively indexed, and shall treat the material listed here in detail, as follows:

1. A procedure for periodic revision of the quality assurance manual;
2. An organizational structure for implementing and maintaining the quality assurance program and its functional relationship to other elements of the organization structure of the manufacturer, which structure shall provide for independence from the production department; company officers and employees in charge of the quality assurance program shall be identified, and their training and qualifications specified;
3. A uniform system of audit (in-depth analysis of program effectiveness and means to identify deficiencies) to monitor the quality assurance program periodically;
4. Complete and reliable records of manufacturing and site operations, if any (suitable means of storage, preservation and accessibility of copies of forms to be utilized shall be included);
5. A system to control changes in production or inspection procedures within the manufacturing facility;
6. A system to assure that working drawings and specifications, working instructions and standards, procurement documents, *etc.* conform to the approved building system;
7. A serial number system for buildings or building components; and
8. The method of safekeeping, handling and attaching labels and identification of those employees responsible therefore.
9. Materials Control.
 - a. Procedure to assure effective control over procurement sources to ensure that materials, supplies and other items used in production and site operations, if any, conform to the approved plans, specifications and quality requirements;
 - b. Procedures for inspection of materials, supplies and other items at the point of receipt;
 - c. Method of protection of materials, supplies and other items against deterioration prior to their incorporation in the certified buildings or building component; and
 - d. Provision for disposal of rejected materials, supplies and other items.

110.R3: continued

10. Product Control.
 - a. Procedures for timely remedial and preventive measures to assure product quality;
 - b. Provision, maintenance and use of testing and inspection;
 - c. Provision for frequency of sampling inspections;
 - d. Provision of necessary authority to reject defective work and carry out compliance assurance functions, notwithstanding any conflict with production department goals and needs;
 - e. A schematic of the manufacturing operation showing the location of inspection stations or areas, and "hold" points for mandatory inspection characteristics;
 - f. Inspection and test procedures, including accept/reject criteria and mandatory inspection characteristics;
 - g. Standards of workmanship; and
 - h. Provision of disposal of rejects.
11. Finished Product Control.
 - a. Procedure for final inspection of all product before shipment to the site or storage point, including identification and labels;
 - b. Procedures for handling and storing all finished product, both at the manufacturing plant or other storage point and after delivery to the building site;
 - c. Procedures for packing, packaging and shipping operations and related inspections; and
 - d. Procedures for transportation, including all measures to protect product against damage while in transit, and setting forth the modes of transportation to be utilized and the carrying equipment and procedures.
12. Installation Control.
 - a. Installation procedures including component placement or set, equipment and procedures, field erection and finishing work, utility connection instructions and all appropriate on-site inspection criteria and test descriptions; and
 - b. Organizational provisions for field repair and disposal of rejects.
13. Permission for Inspection. The manufacturer shall provide the Office with written permission, signed and notarized, for the Office to inspect manufacturing facilities, products, and building sites under his or her control at any reasonable time without prior announcement.
14. Shall contain detailed plans for inspections by the Office or the TPIA.

110.R3.4: Registration of TPIA

110.R3.4.1 General. An entity which seeks to register as a TPIA or to renew a registration as a TPIA shall submit an application and a fee to the Office for approval. Applications will include, but not be limited to, the requirements of 780 CMR 110.R3. A registration shall be issued for an application that meets the requirements of 780 CMR 110.R3, or the Office shall notify the applicant of the reasons for refusal. Registrations first issued and renewals of registrations shall be valid for a period of one year.

110.R3.4.2 Registration Requirements. Applications shall contain, but not be limited to, information on the following; corporate structure, employees, inspection programs, test reports and data sheets, insurance, responsibility and liability, and certification, labels and product. The TPIA applicant shall attest that:

1. All submissions are a true and accurate statement of the personnel, equipment, and procedures that will be followed to certify product;
2. The agency's board of directors, as a body, and its technical personnel as individuals, shall exercise independent judgment;
3. The agency's activities shall not result in financial benefit to the agency through stock ownership, or other financial interests in any producer, suppliers, or vendor of products involved, other than through standard published fees for services rendered;
4. The agency shall not perform architectural, mechanical, electrical, plumbing, sprinkler, or structural design or quality assurance program approvals for any manufacturer who uses the same agency, in whole or in part, by members of the agency or any affiliated organization for in-facility inspections or other TPIA services;

110.R3: continued

5. All inspectors, evaluators, and other technicians are adequately trained and qualified to perform each job assigned to them; and
6. The agency is able to evaluate product for compliance with all applicable codes, standards, laws, and rules.

110.R3.5: Dealers

110.R3.5.1 General. Any dealer who contracts for product that is installed or intended to be installed in the Commonwealth shall, as a minimum, be registered with the Secretary of the Commonwealth and the Massachusetts Better Business Bureau. Complaints against a dealer received by the Office may be forwarded to the Massachusetts Better Business Bureau, the Office of the Attorney General of Massachusetts, the Office of Consumer Affairs and Business Regulations, or other entity for appropriate action.

Exceptions:

- a. Individuals licensed or certified under other state or federal law, when the law provides for specific authority to provide this particular service, or preempts the requirement for such a registration.
- b. Holders of an active license issued by the Massachusetts Real Estate Commission.
- c. Any licensed construction supervisor who contracts directly with the owner or dealer.

110.R3.6: Certification of Plans

110.R3.6.1 General. Plans for newly constructed or recertified product shall meet the requirements set forth in this section and are to be evaluated for compliance with 780 CMR 110.R3 and certified accordingly by the TPIA. Certified plans along with a fee are to be submitted to the Office for review and approval.

110.R3.6.2 Construction Documents. All documents submitted with the application shall be identified to indicate the manufacturer's name, office address and address of the manufacturing facility and shall contain as a minimum the following information:

1. Plans shall be submitted showing all elements relating to specific details on properly identifiable sheets.
2. Each plan application shall bear the signature and seal of a registered design professional certifying that the plans comply with the applicable codes and standards, where applicable.
3. All work to be performed on-site, including connection of all systems, equipment and appliances, shall be identified and distinguished from work to be performed in the manufacturing facility.
4. Grade, quality and identification of all material shall be specified.
5. Design calculations and test reports shall be specified.
6. Drawings shall be drawn to scale and be legible and indicate the location of the data plate and shall be dated and identified. The number of sheets in each set shall be indicated.
7. Plans for product shall provide or show, but not be limited to, the details listed below including the method of their testing or evaluation, or both. These requirements shall apply to the plans for building components only to the extent deemed necessary to permit a proper evaluation of the building component.
 - a. General.
 - i. Details and methods of installation of product on foundations and/or to each other.
 - ii. All exterior elevations.
 - iii. Cross sections as necessary to identify major building components.
 - iv. Details of flashing, such as at openings and at penetrations through roofs and subcomponent connections. Indicate flashing material and gauge to be used.
 - v. Attic access and attic ventilation.
 - vi. Exterior wall, roof and soffit material as well as finish.
 - vii. Interior wall and ceiling finish material.
 - viii. Fire separation walls.
 - ix. Sizes, locations and types of doors, windows and fire/smoke detectors.
 - x. Recommended foundation plans, vents and underfloor access.

110.R3: continued

- b. Building Classification.
 - i. Occupancy or use group.
 - ii. Area, height, and number of stories.
 - iii. Type of construction.
 - iv. Fire resistance ratings.
- c. Space and Fire Safety.
 - i. Details of fire resistance rated assemblies for all stairway enclosures, doors, walls, floors, ceilings, partitions, columns, roof and shaft enclosures and how continuity will be maintained at all horizontal and vertical junctions.
 - ii. Detail of fire protection systems.
 - iii. Details as to width of all aisles, exits, corridors, passageways and stairway enclosures.
 - iv. Toxicity and flame spread classification of finished materials.
- d. Structural Detail Requirements.
 - i. Engineer's calculations of structural members, where appropriate.
 - ii. Structural and framing details of all floors, roof and walls.
 - iii. Details and stress diagrams of roof trusses.
 - iv. Details of reinforcing steel.
 - v. Complete loading schedule.
 - vi. Column loads and column schedule.
 - vii. Lintel schedule.
 - viii. Size, spacing and details of all structural elements.
 - ix. Grade or quality of all structural elements (lumber, steel, *etc.*).
 - x. Elevation of structural elements, walls or sections thereof, providing resistance to vertical loads or lateral forces.
 - xi. Complete details of all structural connections.
- e. Mechanical Detail Requirements.
 - i. Location of all equipment and appliances. Indicate equipment and appliances listed or labeled by approved agencies.
 - ii. Heat loss and heat gain calculations or approved prescriptive method.
 - iii. Manufacturer's name, make, model, number, BTU, input and output rating of all equipment and appliances, as appropriate, or the equal thereof.
 - iv. Duct and register locations, sizes, and materials.
 - v. Clearances from combustible material or surfaces for all ducts, flues and chimneys.
 - vi. Method of providing required combustion air and return air.
 - vii. Location of flues, vents and chimneys and clearances from air intakes and other vents and flues.
 - ix. Details regarding dampers in ducts penetrating fire separations.
 - x. Complete drawings of fire sprinkler system, standpipe system or smoke/fire alarm system as required.
 - xi. Detail of elevator or escalator system, including method of emergency operation.
 - xii. Duct and piping insulation thickness.
 - xiii. Ventilation air calculations.
- f. Plumbing Detail Requirements.
 - i. Plan or schematic drawing of the plumbing layout including, but not limited to, size of piping, fitting, traps and vents, cleanouts and valves, gas, water, and drainage system.
 - ii. Plumbing materials, and location of all equipment and appliances to be used. Indicate fixture unit capacity of system(s) and the make, model, and rating/capacity of equipment and appliances. Indicate equipment and appliances listed or labeled by approved agencies.
 - iii. Make and model of safety controls (such as for water heaters), their location, and whether listed or labeled by approved agencies.
 - iv. How piping is to be supported and intervals of support.
 - v. Location of vents above roofs and required clearances including, but not limited to, clearances from air intakes, other vents and flues.
 - vi. Methods of testing.

110.R3: continued

- g. Electrical Detail Requirements.
 - i. Plan of service equipment, including service entrance, conductors, service raceway and clearances above ground and above structures.
 - ii. Method and detail for grounding service equipment.
 - iii. Single line diagram of the entire electrical system.
 - iv. Load calculations for service and feeders.
 - v. Sizes of all feeders and branch circuits.
 - vi. Size, rating and location of main disconnect/overcurrent protective devices.
 - vii. Method of interconnection between product and location of connections.
 - viii. Location of all outlets and junction boxes.
 - ix. Method of mounting fixtures and wiring installations.
 - x. Lighting power calculations.

110.R3.7: The Office Inspections

110.R3.7.1 General. The Office, as it deems necessary, may conduct a review of processes a manufacturer's processes and/or TPIA inspection practices or any other requirement governed by 780 CMR 110.R3. This may include any part of the entire process of manufacturing, certifying, handling, storing and transporting of product pursuant to approved plans. No inspection entailing disassembly, damage to or destruction of certified product shall be conducted except to implement 780 CMR 110.R3.

110.R3.7.2 Damaged Product. Any finding of damage to product shall cause immediate notification to be made to the Office, TPIA and the manufacturer. Prior to the issuance of a certificate of occupancy, the Office shall inspect, or cause to be inspected, product which it determines to have been sufficiently damaged after certification to warrant such inspection and to take such action with regard to such product as is authorized hereof, or as is otherwise necessary to eliminate dangerous conditions. The local enforcement agencies may designate the Office as the inspection agency.

110.R3.7.2.1 Repairing Damaged Components. The Office or a TPIA shall require product which are so damaged as to no longer comply with the applicable codes and 780 CMR 110.R3 to be repaired and made to comply within 14 days of discovery and after proper written notice to the manufacturer, installer and owner; or if they are so damaged that they cannot be brought into compliance, the Office or a TPIA shall order that the labels be removed and voided from such product. A report shall be filed with the TPIA and the Office. Irreparably damaged product shall be disposed of by the manufacturer, the CSL and/or owner.

110.R3.7.3 TPIA Review. The Office or their designated agents shall audit a TPIA, at any reasonable time, and without prior announcement, in order to monitor the reliability of each TPIA and of its monitoring of quality assurance manuals. Each such audit shall investigate the adequacy of all procedures used by the agency in monitoring compliance assurance programs including inspection, tests, production methods, process controls, operator performance, materials, receipts, storage and handling, workmanship standards, records and all other activities which implement the quality assurance program in the manufacturing facility, during transport, or on-site (as applicable), and at subcontractors' facilities. The results of such audit shall be filed with the Office and sent to the TPIA in writing, within 14 days of discovery. The TPIA shall be notified of any deficiencies and of the manner and time by which such deficiencies shall be eliminated. If deemed necessary by the Office, a TPIA registration may be suspended or revoked. An audit may also be conducted by the Office before approving an inspection agency for first issuance of a registration.

110.R3.8: Local Agency Enforcement

110.R3.8.1 Permits. Upon application and in conformity with the provisions of 780 CMR and 780 CMR 110.R3, the building official shall issue building permits for installation of product.

110.R3: continued

110.R3.8.1.1 Owner's Agent. A CSL, duly licensed in accordance with 780 CMR 110.R5, shall, in accordance with 780 CMR 1.00: *Scope and Administration*, be hired by and act as the agent for the owner for the purpose of applying for and obtaining any and all permits required for the field installation of all product. The CSL shall be responsible for the construction of the foundation system, the attachment to the foundation, and completion of the product, and all pertinent site work required by section 105 of 780 CMR and shall provide at least 48 hours notice to the Office and the building official before the placement and connection of such units shall begin.

110.R3.8.1.2 Submittal Documents. As part of the permit application process, the CSL shall submit to the building official, in writing:

- a. The name of the installer, who shall be duly certified by the manufacturer to install said manufacturer's product, and is identified as an installer of product. The installer shall be responsible for the safe and proper placement and connection of the product in accordance with 780 CMR, 780 CMR 110.R3, and the specialized codes.
- b. A statement that the work to be performed under such permit is to include the installation of the specific type of product in accordance with the provisions of the applicable codes, the statement is to be signed by the applicant or his or her agent, with the appropriate address.
- c. A true copy of the approved product and where it was manufactured or is to be manufactured, where one has not previously been furnished to that local enforcement agency.
- d. Site specific plans and specifications.
- e. Plan Identification Number Assignment Form for newly constructed or recertified units with BBRS number. This is to confirm plans have been approved by the state and shall include a stamp approval and signature.
- f. Plans shall be stamped on every page by a TPIA.
- g. Every page showing calculations by a registered design professional shall be provided with their stamp and signature.
- h. Energy compliance certificate.
- i. Set manuals are required to be on-site at time of project set.

Exception: If all connection details are provided on the plans, then the set manual is not required.
- j. Set crew information shall accompany the plan submittal package with approved certification from manufacturer.

110.R3.8.2 Inspection of Site Preparation and Service Connections. Appropriate local enforcement agencies shall inspect site preparation work including foundations, not within the scope of the approval and certification, and the structural, mechanical, plumbing, sprinkler, and electrical connections among units or components, for compliance with applicable law, rules and regulations.

110.R3.8.3 Compliance with Instructions. Appropriate local enforcement agencies shall inspect all product upon, or promptly after, installation at the building site to determine whether all instructions in the set connection details report or conditions listed on the manufacturer's data plate have been followed. This may include inspections for exterior weather-tightness and protection, tests for tightness of plumbing and mechanical systems, and for malfunctions in the electrical system and a visual inspection for obvious nonconformity with the approved building plans.

110.R3.8.3.1 Disassembly Prohibited. Destructive disassembly of product shall not be performed in order to conduct such tests or inspections, nor shall there be imposed standards or test criteria different from those adopted by the Office or specified in the approved plans.

110.R3.8.3.2 Opening Panels. Nondestructive disassembly may be performed only to the extent of opening access panels and cover plates.

110.R3.8.4 Non-complying New or Recertified Units. Local enforcement agencies shall report to the BBRS in accordance with 780 CMR 110.R3 any non-complying product.

110.R3: continued

110.R3.8.5 Certificates of Occupancy. Building officials shall issue certificates of occupancy for product as applicable if such product has been installed and inspected pursuant to the applicable codes and 780 CMR 110.R3 and complies with the approved building specifications and plans. Any noncompliant items shall be brought into compliance before such certificate of occupancy shall be issued.

110.R3.8.6 Reporting of Violations to Division of Professional Licensure. When any local enforcement agency is making an inspection and finds violations or suspected violations, it shall report the details of the violations in writing to the BBRS. Where violations are hazardous to occupants, a certificate of occupancy shall not be issued and the building shall not be occupied before such hazards are corrected.

If the violations are not hazardous, a temporary certificate of occupancy may be issued.

110.R3.9 Compliance Assurance

110.R3.9.1 Grounds. The BBRS may suspend or revoke the registration of any TPIA or certification of any manufacturer, if the approval was issued in error; was issued on the basis of incorrect information; was issued in violation of any of the applicable codes or 780 CMR 110.R3; if examination discloses that the entity failed to perform properly; or for such other cause as may be deemed sufficient by the Office to warrant such action. If there is a violation of the specialized codes, the Office shall notify the authority having jurisdiction.

110.R3.9.2 Notice. If the BBRS suspends or revokes the registration of a TPIA, the TPIA shall be given notice in writing from the Office of the suspension or revocation with the reasons therefore set forth therein. Manufacturers being evaluated or inspected by such agencies and all local enforcement agencies within the Commonwealth shall also be notified in writing of such suspension or revocation. Such notices shall contain instructions to the manufacturer and to the local enforcement agency as to the procedures to be followed regarding product previously certified by the TPIA whose approval has been suspended or revoked. If the BBRS suspends or revokes the certification of a manufacturer, the manufacturer shall be given notice in writing from the Office of the suspension or revocation with the reasons therefore set forth therein. Such notices shall contain instructions to the TPIA and to the local enforcement agency as to the procedures to be followed regarding product produced by the manufacturer whose certification has been suspended or revoked.

110.R3.9.3 Records. If an entity whose registration or certification has been suspended or revoked shall within 90 days of the suspension or revocation deliver to the custody of the Office the originals of all records required to be maintained during the course of its operations pursuant to the applicable codes and 780 CMR 110.R3.

110.R3.9.4 Appeal. Any entity aggrieved by a revocation or suspension stemming from a violation of 780 CMR 110.R3 or any other section or provision of 780 CMR may appeal to the BBRS as allowed by 780 CMR 1.00: *Scope and Administration*. For appeals to specialized code requirements the authority having jurisdiction shall administer the appeal.

NON-TEXT PAGE

CHAPTERS 110.R1 through 110.R7

Chapters 110.R1 through 110.R7 are special regulations particular to certain Massachusetts programs relating to:

- **Licensing Concrete Testing Laboratories - 110.R1**
- **Licensing Concrete Field Testing Technicians - 110.R2**
- **Approving Manufactured Buildings - 110.R3**
- **Registering Native Lumber Producers - 110.R4**
- **Licensing Construction Supervisors - 110.R5**
- **110.R6 is a reserved chapter**
- **Certifying Building Code Enforcement Officials - 110.R5**

These regulations are unique to Massachusetts.

110.R4: REGISTRATION OF NATIVE LUMBER PRODUCERS

(Note: 780 CMR 110.R4 is unique to Massachusetts)

110.R4.1: Administration

110.R4.1.1 Scope. The provisions of 780 CMR 110.R4 shall govern the licensing of native lumber producers.

110.R4.1.2 Definitions. The following words and terms shall, for the purposes of 780 CMR 110.R4 and as used elsewhere in 780 CMR, have the meaning indicated in 780 CMR 110.R4.1.2.

NATIVE LUMBER. Native lumber is wood processed in the Commonwealth by a mill registered in accordance with 780 CMR. Such wood is ungraded but is stamped or certified in accordance with 780 CMR 23.00: *Wood*. Native lumber shall be restricted to use in one- and two-story dwellings, barns, sheds, agricultural and accessory buildings and structures and other uses as permitted by 780 CMR 23.00.

NATIVE LUMBER PRODUCERS. Persons or corporations in the business of milling wood into native lumber within the Commonwealth.

PERSON. Individual, partnership, corporation, trust, joint venture, *etc.*

110.R4.1.3 Registration. No person shall produce native lumber for use in buildings or structures within the Commonwealth unless registered by the BBRS.

110.R4.1.4 Application. Native lumber producers shall apply and furnish qualifications satisfactory to the BBRS in accordance with 780 CMR 110.R4 and qualification requirements provided by the BBRS with the application form.

110.R4.1.5 Registration Fee. Applications shall be accompanied by a registration fee in accordance with 801 CMR 4.02: *Fees for Licenses, Permits, and Services to Be Charged by State Agencies*. This initial registration shall be valid for two years.

110.R4.1.6 Renewals. Registration shall be renewed every two years. Within 30 days before the registration expiration date, the BBRS shall forward to each registrant a renewal form. Upon receipt of the completed form and fee in accordance with 801 CMR 4.02: *Fees for Licenses, Permits, and Services to Be Charged by State Agencies*, the BBRS shall renew the registration for a period of two years or notify the applicant of reasons for refusal. Any application for renewal of a registration which has expired shall require the payment of a new registration fee.

110.R4.1.7 Prequalifying Agent. State inspectors of the Division of Professional Licensure shall act as agents of the BBRS to inspect native lumber producing facilities. Upon receipt of a completed application, the state inspector shall inspect the facility for compliance with the required qualifications and make recommendation to the BBRS.

110.R4.1.8 Penalties. Any person who fails to comply with the requirements of 780 CMR 110.R4 or who falsifies an application shall be subject to the penalties and actions as prescribed in section 114.0 of 780 CMR.

110.R4.2: Registration Stamp

110.R4.2.1 Issuance. Each person registered by the BBRS shall be issued a specific name and number for use in stamping or certifying the native lumber produced at a specific mill.

110.R4.2.2 Contents. Each stamp shall be a minimum of two inches by four inches with a minimum of 36 pt. letters and shall contain the following information:

1. Name of native lumber producer;
2. Registration number; and
3. Species of wood.

Each producer shall be responsible for obtaining stamps made for their use in accordance with the requirements of the BBRS and 780 CMR 110.R4.

110.R4: continued

110.R4.2.3 Use. Each piece of native lumber shall be stamped with the name and registration number of the producer in accordance with 780 CMR 110.R4 and bear an approved mark identifying the species of wood. In *lieu* of stamping, a certification bearing the same stamped information may be provided by the producer for precut or re-manufactured lumber in accordance with 780 CMR 110.R4.

110.R4.2.4 Unlawful Use. It shall be unlawful to use a stamp registered for a specific mill at any other mill.

110.R4.3: Revocation and Suspension

110.R4.3.1 Revocation and Suspension. The BBRS may suspend or revoke the registration of any native lumber producer found to be in noncompliance with 780 CMR or the standard of good practice. Notice of suspension, revocation or refusal to renew a registration shall be in writing with the reasons clearly stated, and served in accordance with 780 CMR 1.00: *Scope and Administration*. Prior to issuance of a suspension, revocation or refusal to renew a registration, written notice of such intent shall be served by the BBRS through its designee the Office in accordance with 780 CMR 1.00. Upon registration suspension or revocation, the native lumber producer shall immediately cease production of native lumber.

110.R4.3.2 Appeals. Any native lumber producer or individual aggrieved by the suspension or revocation of a registration or by an interpretation, order, requirement, direction or failure to act under 780 CMR 110.R4 may appeal to the Building Code Appeals Board as provided in 780 CMR 1.00: *Scope and Administration*. However, entry of an appeal shall not stay such revocation or suspension unless so ordered by the Building Code Appeals Board in a preliminary hearing conducted expressly for the purpose of a stay.

CHAPTERS 110.R1 through 110.R7

Chapters 110.R1 through 110.R7 are special regulations particular to certain Massachusetts programs relating to:

- **Licensing Concrete Testing Laboratories - 110.R1**
- **Licensing Concrete Field Testing Technicians - 110.R2**
- **Approving Manufactured Buildings - 110.R3**
- **Registering Native Lumber Producers - 110.R4**
- **Licensing Construction Supervisors - 110.R5**
- **110.R6 is a reserved chapter**
- **Certifying Building Code Enforcement Officials - 110.R5**

These regulations are unique to Massachusetts.

110.R5: LICENSING OF CONSTRUCTION SUPERVISORS

(Note: 780 CMR 110.R5 is unique to Massachusetts)

110.R5.1 General

110.R5.1.1 Scope. The provisions of 780 CMR 110.R5 shall govern the licensing of construction supervisors.

110.R5.1.2 Definitions. Unless otherwise expressly stated in 780 CMR the following terms shall, for the purpose of 780 CMR 110.R5, have the meaning indicated in 780 CMR 110.R5.1.2.

BBS. State Board of Building Regulations and Standards.

CSL. A construction supervisor license. See also construction supervisor.

CONSTRUCTION SUPERVISOR. A person of good moral character who is deemed qualified by the BBS to directly supervise persons engaged in the scope of work shown in Table 110.R5.1. Such term shall also apply to persons supervising themselves.

Code	Designation	Note 1	Table 110.R5.1 Construction Supervisor License (CSL) Scope of Work
none ^a	CSL ^a	a, b, c, d	Construction, reconstruction, alteration, repair, removal, or demolition
none	CSL I&2 Family Dwellings	b	Construction, reconstruction, alteration, repair, removal, or demolition
IA	CSL Masonry ^b	a, b, c, d	Construction, reconstruction, alteration, repair, removal, or demolition of masonry structures that require a permit. Not applicable for construction of masonry buildings
RF	CSL Roof Covering ^a	a, b, c	Construction, reconstruction, alteration, repair, or removal of roof covering, including repair and replacement of 25% of sheathing and 25% of sistering roof rafters
WS	CSL Window and Siding ^b	a, b, c	Construction, reconstruction, alteration, repair, or removal of doors, windows and siding including repair and replacement of damaged window or door framing < 4' wide and up to 25% of sheathing
SF	CSL Solid Fuel-Burning Appliance ^b	a, b, c	Installation of solid fuel burning appliances but does not allow work on any structural elements, including sheathing, with the exception of that required for the installation of either the inlet or exhaust elements
DM	CSL Demolition ^b	a, b, c, d	Demolition only.
IC	CSL Insulation ^b	a, b, c	Installation of insulation including repair and replacement of sheathing and siding necessary to access wall cavities
b. Specialty License		a. formerly known as "00, Unrestricted" CSL	
Note 1: Building Types and Structures			
a	Buildings of any use group which contain less than 35,000 cubic feet (991m ³) of enclosed space.		
b	One- and two-family dwellings or any accessory building thereto, irrespective of size.		
c	Building or structures for agricultural use.		
d	Retaining walls less than ten feet in height at all points along the wall as measured from the base of the footing to the top of the wall.		

HEARINGS OFFICER. The hearings officer is the person selected by the Division of Professional Licensure and approved by the chair of the BBS to carry out the disposition of complaints against licensed construction supervisors.

HOMEOWNER. Person(s) who owns a parcel of land on which he or she resides or intends to reside, on which there is, or is intended to be, a one- or two-family dwelling, attached or detached structures accessory to such use and/or farm structures. A person who constructs more than one home in a two-year period shall not be considered a homeowner.

110.R5: continued

LICENSED DESIGNEE. Any individual designated by the license holder to be present, in the absence of said license holder, during any of the periods stated in 780 CMR 110.R5.2.12. Such designee shall also hold a construction supervisor's license in the appropriate category (or better), but his or her name or license number need not be contained on the building permit application.

RECOGNITION. The approval by the BBRs of an application and related documents by one desirous of being licensed as a construction supervisor.

110.R5.1.3 Scope. 780 CMR 110.R5 shall govern the testing and licensing of individuals who are found to possess the requisite qualifications to be licensed as a construction supervisor and to have charge or control of construction, reconstruction, alteration, repair, removal or demolition of certain buildings or structures or parts thereof, as identified.

110.R5.1.3.1 Individuals supervising persons engaged in construction, reconstruction, alteration, repair, removal or demolition involving any activity regulated by any provision of 780 CMR, shall be licensed in accordance with 780 CMR 110.R5. Individuals engaged in the supervision of the field erection of manufactured buildings in accordance with 780 CMR 110.R3, shall be licensed as construction supervisors.

Exception: Any homeowner performing work for which a building permit is required shall be exempt from the licensing provisions of 780 CMR 110.R5, provided that if a homeowner engages a person(s) for hire to do such work, then such homeowner shall act as supervisor. This exception shall not apply to the field erection of manufactured buildings constructed pursuant to 780 CMR 110.R3.

NOTE: Any licensed construction supervisor who contracts to do work for a homeowner shall be responsible for performing said work in accordance with 780 CMR and manufacturer's recommendations, as applicable, whether or not the licensed contractor secured the permit for said work.

110.R5.1.3.2 Exemptions. A construction supervisor's license is not required for:

1. construction of swimming pools, the erection of signs, the erection of tents;
2. projects which are subject to construction control pursuant to 780 CMR 1.00: *Scope and Administration*;
3. agricultural buildings which are not open to the public or otherwise made available for public use;
4. registered design professionals, provided such comply with the construction supervisor oversight requirements set forth in 780 CMR 110.R5 generally and 780 CMR 110.R5.2.12, as applicable;
5. Massachusetts certified building officials, provided such certification is current and they comply with the oversight requirements of 780 CMR 110.R5 generally and 780 CMR 110.R5.2.12, as applicable; or
6. the practice of any trade licensed by agencies of the Commonwealth, provided that any such work is within the scope of said license including, but not limited to wiring, plumbing gas fitting, fire protection systems, pipefitting, HVAC and refrigeration equipment. See M.G.L. c. 112, § 81R.

110.R5.1.3.3 Municipal Requirements. No municipality shall be prohibited from requiring a license for those individuals engaged in directly supervising persons engaged in construction, reconstruction, alteration, repair, removal or demolition in those categories of building and structures for which 780 CMR 110.R5 does not require a license.

110.R5.1.4 Administration and Enforcement. The BBRs shall administer and enforce the provisions of 780 CMR 110.R5. The BBRs or those designated by it shall administer examinations, under 780 CMR 110.R5, of persons desirous of being registered as qualified to receive a license as a construction supervisor.

110.R5: continued

110.R5.2: Registration and Licensing

110.R5.2.1 Qualifications. A construction supervisor license candidate shall demonstrate that he or she has had at least three years of experience in their field. This experience shall have been completed within the ten-year period prior to the date of application. Successful completion of certain educational programs may satisfy one to two years of required experience. In addition, all applicants are required to successfully pass an examination in order to receive a license. For a list of the pre-exam qualifications, access the examination application noted in 780 CMR 110.R5.2.2.

Exception: An individual holding a current certification in accordance with the requirements of 780 CMR 110.R7 shall be allowed to submit an application for an unrestricted construction supervisor license without the need for examination.

110.R5.2.1.1 Evaluation of Exam Scores. The authorized testing agent of the BBRS shall determine a successful exam score. BBRS may evaluate multiple unsuccessful exam scores of an applicant if the applicant has:

- a. received and utilized testing accommodation through the authorized testing agent;
- b. taken the exam at least three times in the past five years and not received a successful score on any one exam;
- c. received an exam score 5% greater than the successful exam score authorized by the testing agent using a weighted average of the highest scores from each section of any two of the three exams; and
- d. provided a letter of recommendation from any two of the following individuals:
 - i. a building official;
 - ii. a registered design professional; and/or
 - iii. a construction supervisor licensee.

If the requirements of 780 CMR 110.R5.2 are met then the exam applicant has successfully passed an examination in accordance with 780 CMR 110.R5.

110.R5.2.2 Examinations. Examinations shall be held only by appointment. All exam applications shall be filed in accordance with the construction supervisor license examination application found at <http://www.mass.gov/ocabr/government/oca-agencies/dpl-lp/opsi/>.

110.R5.2.3 License Approval. A majority vote of the members of the BBRS shall be required to grant a license.

110.R5.2.4 Expiration. Licenses issued pursuant to 780 CMR 110.R5 shall expire three years from the date of issuance, which shall be noted on said license and may be renewed. A renewal of an original license shall be for periods of two years and a renewal license shall expire two years from the date of issuance, which shall be noted on said license and may be renewed. A renewal license shall not be issued unless application therefore is made within one year of the date of expiration of the most recently issued license. If a licensee fails to renew his or her license within one year of the expiration date; such license may thereafter be renewed within two years of its expiration date upon the payment of a fee in accordance with 780 CMR.

Exceptions: For applications meeting any of these four exception requirements, where applicable, the license shall be renewed for a minimum of one year to a maximum of three years.

1. **Medical Reactivation.** Applicants who seek license reactivation and a waiver of the retesting and/or continuing education requirements shall:
 - a. notify the Office in writing *via* email or US mail, within four years of expiration date of the license;
 - b. have evidence of personal illness defined as one of the internationally recognized causes of mortality or one of the recognized mental health related illnesses, or illness or death of a parent, sibling, spouse, or child in a four-year window from date of the Office's written notification;
 - c. not have DOR tax, child support, Home Improvement Contractor or Construction Supervisor complaint, or civil fine issues with the Office; and

110.R5: continued

- d. submit the following:
 - i. an application form from the Office;
 - ii. a form letter from the Office stating how illness or death contributed to loss of focus on personal or business affairs;
 - iii. medical evidence of illness or death; and
 - iv. a fee.
2. **Military Reactivation.** Applicants who seek license reactivation and a waiver of the retesting and/or continuing education requirements shall:
 - a. notify the Office in writing *via* email or US Mail, within four years of expiration date of the license;
 - b. have evidence of personal military service or of military service of spouse;
 - c. not have DOR tax, child support, Home Improvement Contractor or Construction Supervisor complaint, or civil fine issues with the Office; and
 - d. submit the following:
 - i. an application form from the Office;
 - ii. evidence of honorable military service within the expiration period; and
 - iii. a fee.
3. **Valor Act.** If a license holder is on active duty with the armed forces of the United States, as defined in M.G.L. c. 4, § 7, clause 43, the certificate shall remain valid until the license holder is released from active duty and for a period of not less than 90 days following that release. For this exception to apply, the license holder shall be given an Honorable Discharge, a General Discharge, or an Under Other than Honorable Conditions ("UOTHC") Discharge, as noted on their discharge and separation papers.

The BBRs may accept education, training, or service completed by an individual as a member of the armed forces, as defined in M.G.L. c. 4, § 7, clause 43, or the United States military reserves as an alternative or in addition to submission of required documentation pursuant to continuing education requirements. The applicant shall submit a license renewal application along with a Verification of Military Experience and Training form and any other supporting documentation. The education, training, or service submitted to the BBRs shall have been completed within 24 months of submission.

4. **Age Reactivation.** Applicants who seek license reactivation and a waiver of the retesting requirement shall:
 - a. notify the Office in writing *via* email or US Mail a desire to reactivate the license and be 62 years of age or older on the date of notification from the Office;
 - b. not have DOR tax, child support, Home Improvement Contractor or Construction Supervisor complaint, or civil fine issues with the Office; and
 - c. submit the following:
 - i. a renewal application from the Office;
 - ii. certificates of continuing education from expiration date of the license to date of notification from the Office; and
 - iii. a fee.

Note: The continuing education waiver shall be utilized only once per licensee.

110.R5.2.5 Expired License. The practice of construction supervision is prohibited with an expired license.

110.R5.2.6 Procedure for Obtaining a License.

110.R5.2.6.1 Application. License applicants meeting the qualifications of 780 CMR 110.R5.2.1 may submit an examination application in accordance with 780 CMR 110.R5.2.2 to the authorized testing agent of BBRs.

110.R5.2.6.2 Forms. It shall be the responsibility of the applicant to assure that the required forms are received by the testing agency. All forms shall be accompanied by the required license fee.

110.R5.2.6.3 Records. The BBRs shall keep a copy of the application and a computer file listing all licensed construction supervisors.

110.R5: continued

110.R5.2.6.4 Examination Date. Upon receipt of a fully completed application, an examination date shall be set by the authorized testing agency and the applicant so notified.

110.R5.2.7 False Statements. Any false statement on the application or references shall be sufficient reason to refuse to issue a license, or to suspend or revoke a license if issued.

110.R5.2.8 Cause for Suspension or Revocation. The following shall be grounds for reprimand, suspension, or revocation of a license:

1. the applicant made a false statement to the BBRS;
2. a licensee made a false statement to the BBRS;
3. any violation of 780 CMR;
4. work was performed without a building permit;
5. failure to fully cooperate with a BBRS investigation into a complaint;
6. failure to turn over a suspended or revoked license to the BBRS;
7. failure to abide by a mandate or order of the BBRS;
8. failure to properly supervise a project or be present at a work site as required by 780 CMR 110.R5;
9. failure to meet the requirements of 780 CMR 110.R5.4;
10. revocation of the CSL holder's Home Improvement Contractor Registration by the Office of Consumer Affairs and Business Regulations (HIC revocations that are not personal to the CSL holder shall not be grounds for discipline);
11. violations of state or federal law relevant to CSL work, including violations of the Occupational Safety and Health Act or Occupational Safety and Health Administration regulations, as formally decided by the courts or relevant state or federal agency; and
12. conduct showing a lack of good moral character.

110.R5.2.9 Procedure for Suspension or Revocation of License.

110.R5.2.9.1 Complaints. All complaints relative to a license shall be in writing on a form provided by the BBRS. Any person, including a building official, staff of the Massachusetts Office of Consumer Affairs and Business Regulation, or the BBRS itself, may file a complaint. All complaints shall be received by the BBRS within three years of the date the parties entered into an agreement to perform work requiring licensure pursuant to 780 CMR 110.R5.

110.R5.2.9.1.1 Basis of Complaint. Work related to a specific building permit that is deemed to not comply with 780 CMR or a consistent pattern of abuse relating to contractual arrangements between license holder and client shall be the basis of such complaint. Any work requiring a building permit which is performed without such permit shall be considered cause for suspension or revocation.

110.R5.2.9.1.2 Review and Investigation of Complaints. The BBRS or its designee shall review every complaint filed. If the reviewer determined that the complaint alleges plausible potential violations of 780 CMR by the licensee, a hearing shall be convened. The BBRS may, if it elects, investigate a complaint prior to scheduling a hearing. Failure of a complainant to cooperate in the investigation shall be grounds for dismissal of a complaint.

Upon receipt of a complaint, the BBRS or its designee shall send a letter acknowledging receipt to the complainant, the licensee being complained of, and the appropriate municipal building official. A copy of the complaint and all attachments shall be mailed to the license holder with the acknowledgment letter.

110.R5.2.9.2 Reserved.

110.R5.2.9.3 Notice of Hearing. If the hearings officer or the BBRS determined that a hearing shall be held to resolve a complaint, reasonable notice shall be provided to the complainant and the license holder. Mailing of the notice to the address on record with BBRS shall be deemed satisfactory notice to the license holder. The notice of hearing shall contain:

1. the name of the complainant.

110.R5: continued

2. The date, time and place of said hearing.
3. The location of the incident giving rise to the complaint.
4. Notice that either party may view the BBRS's complaint file by appointment.

110.R5.2.9.4 Hearings. Hearings convened pursuant to 780 CMR 110.R5 shall be conducted pursuant to 801 CMR 1.02: *Informal/Fair Hearing Rules*. Any party may be represented by legal counsel. All parties shall be permitted to present an opening statement, testify on their own behalf, cross-examine all witnesses, present any relevant witness testimony, present any relevant documentary evidence, and offer a closing argument. The hearings officer may question any witness and include any records kept by the BBRS as exhibits. The hearings officer may conclude the hearing at any time and issue a decision based on the evidence presented. If a licensee does not appear for the hearing, the hearings officer may conduct a hearing in their absence and render a decision based upon the evidence presented, but only after making a finding that the licensee was provided notice as required by 780 CMR 110.R5.2.9.3.

110.R5.2.9.5 Decisions and Discipline of License Holders. The hearings officer shall issue a written decision after the hearing. Decisions shall be issued in a reasonably prompt manner. The hearings officer may suspend a license for a fixed period of time, revoke a license permanently, or reprimand the licensee. In conjunction with these disciplinary measures, the hearings officer may order the license holder to retake the CSL examination. Any license that is suspended or revoked shall be forwarded to the BBRS immediately. A person whose license is revoked may apply in writing to the BBRS for reinstatement no sooner than two years from the date of the revocation.

110.R5.2.10 Discretionary Appeal. Any person aggrieved by a decision of the hearings officer may, in writing, request review of said decision by the BBRS. The filing of such a petition shall not serve to stay any disciplinary action taken by the hearings officer.

The BBRS may review such decision at its discretion. Such review is an administrative review that shall be based solely on the administrative record and is not to be construed as a second hearing on the same complaint(s). After review, the BBRS may deny the petition, grant the petition but affirm the decision of the hearings officer, or grant the petition and remand the matter to the hearings officer for further proceedings as directed. An order of remand may include instructions that the hearing officer's decision imposing a reprimand, period of suspension, or revocation be increased, decreased, waived, or rescinded, and any other penalty substituted including, but not limited to, decreasing or increasing a period of suspension, rescinding a suspension and issuing a reprimand, or rescinding a suspension and ordering revocation. The filing of an appeal with the BBRS shall serve to toll the timing provisions of M.G.L. c. 30A, § 14 until such time as the BBRS issues its order on review.

110.R5.2.10.1 Appeal to a Court. Any person aggrieved by a decision of the hearings officer or the BBRS may appeal such decision in conformance with M.G.L. c. 30A, § 14.

110.R5.2.11 Change of Address. The license holder shall have the responsibility of reporting any change of address and/or change of circumstance to the BBRS. The information on file at the BBRS shall be deemed accurate unless changed by the license holder.

110.R5.2.12 On-site Presence of Supervisor. A licensed construction supervisor or a licensed designee as defined shall be present on the site at some point to approve construction, reconstruction, alterations, removal or demolition involving the following work:

Note: Any licensed construction supervisor who contracts to do work for a homeowner shall be responsible for performing said work in accordance with 780 CMR whether or not the licensed contractor secured the permit for said work.

1. Foundation:
 - a. Preparation of bearing material;
 - b. Location of foundation;
 - c. Placement of forms and reinforcing materials (if applicable);

110.R5: continued

- d. Placing of concrete (or setting of other foundation materials);
- e. Setting weather protection methods (if required);
- f. Installation of waterproofing and/or damp proofing materials; and
- g. Placement of backfill.

Note: If groundwater is encountered in excavating for foundation placement, the licensed construction supervisor shall report its presence to the building official and shall submit a report detailing methods of remediation.

2. Structural frame:
 - a. Installation of joists, trusses and other structural members and sheathing materials to verify size, species and grade, spacing and attachment/fastening methods. The licensed construction supervisor shall ensure that any cutting or notching of structural members is performed in accordance with requirements of 780 CMR.
 - b. Setting of masonry or other structural systems (if used).
3. Energy conservation: Installation of insulation materials, vapor and air infiltration barriers.
4. Fire protection: Installation of smoke, heat and carbon monoxide ("CO") detectors and/or systems.
5. Special construction including, but not limited to:
 - a. Chimneys.
 - b. Retaining walls over four feet in height above grade.

The building official may require a licensed construction supervisor or his or her licensed designee to be present on the building site at other points during the construction, reconstruction, alterations, removal or demolition work as he or she deems appropriate.

110.R5.2.13 Lost/Stolen Licenses. License holders are required to keep the license in their possession at all times during the course of construction work at any and all building sites. If said license is lost, stolen or mutilated, it shall be the responsibility of the license holder to notify the BBRS.

110.R5.2.14 Requirement to Show License. A building official may require the license holder to produce the license at any time on a job site.

110.R5.2.15 Responsibility of Each License Holder.

110.R5.2.15.1 Responsibility for Work. The license holder shall be fully and completely responsible for all work for which he or she is supervising. He or she shall be responsible for seeing that all work is done pursuant to 780 CMR and the drawings as approved by the building official.

110.R5.2.15.2 Responsibility to Supervise Work. The license holder shall be responsible to supervise the construction, reconstruction, installation, alteration, repair, removal or demolition for the category of license held involving any activity regulated by any provision of 780 CMR and all other applicable Laws of the Commonwealth even though he or she, the license holder, is not the permit holder but only a subcontractor or contractor to the permit holder.

110.R5.2.15.3 Notification of Violations. The license holder shall immediately notify the building official in writing of the discovery of any violations which are covered by the building permit.

110.R5.2.15.4 Willful Violation. Any licensee who shall willfully violate 780 CMR shall be subject to revocation or suspension of license by the hearings officer.

110.R5.2.16 Permit Applications. All building permit applications shall contain the name, signature and license number and the category of license so held of the construction supervisor who is to supervise those persons engaged in the work as defined in the building permit. In the event that such licensee is no longer supervising said persons, the work shall immediately cease until a successor license holder is substituted on the records of the building department.

110.R5: continued

110.R5.3: Administration

110.R5.3.1 Identification. The BBRS shall issue a card or a certificate or other form of license identification.

110.R5.3.2 Records of Licensees. The BBRS shall maintain a computer listing (<http://www.mass.gov/ocabr/government/oca-agencies/dpl-lp/opsi/>) which will be available to the public at the office of the BBRS containing all licenses issued by the BBRS.

110.R5.3.3 Examination. The BBRS shall determine whether an examination shall be required, or shall be oral or written and shall determine the content of the examination, if applicable.

Exception: An individual holding a current certification in accordance with the requirements of 780 CMR 110.R7 shall be allowed to submit an application for the construction supervisor license without the need for examination.

110.R5.3.4 Subject to Rules, Regulations and Procedures. All persons licensed shall be subject to 780 CMR 110.R5, as well as other rules, regulations, and procedures promulgated by the BBRS.

110.R5.3.5 Fees. Any and all fees charged for licenses, examinations, renewals, and registrations shall be determined by the Commonwealth and enforced by the BBRS. Fees shall be established from time to time as necessary, and shall be paid in accordance with 801 CMR 4.02: *Fees for Licenses, Permits, and Services to Be Charged by State Agencies.*

110.R5.3.5.1 Building Official Fees. The BBRS shall grant a construction supervisor license without examination to an individual holding a current certification in accordance with the requirements of 780 CMR 110.R7. An individual seeking such license shall file an application to the BBRS and pay all appropriate license fees.

110.R5.4 Continuing Education

110.R5.4.1 Standards. The BBRS may by rule adopt standards for continuing education requirements and course and instructor approval. The standards shall include requirements for continuing education as applicable to buildings and building codes and referenced standards.

110.R5.4.2 Hours. A qualifying licensee shall provide proof of completion of required hours of continuing education per two-year license cycle in the appropriate category in which the licensee is licensed. Credit may not be earned if the licensee has previously obtained credit for the same course as either a student or instructor during the same licensing period.

- 1. Construction Supervisors License 12 Hours
- 2. Construction Supervisors License (One- and Two-family Dwellings) ten Hours
- 3. Construction Supervisors Specialty License six Hours

Exception: Building officials who are certified and in good standing in accordance with 780 CMR 110.R7 are exempt from 780 CMR 110.R5.4.

110.R5.4.3 Education Topics. Construction Supervisor License holders are required to complete the appropriate minimum number of continuing education hours each two-year renewal cycle as described in 780 CMR 110.R5.4.2. The following hour(s) of continuing education topics are required for 12 and ten hour trainings as identified in 780 CMR R5.4.2:

- 1. Code Review four hours

Note: Code review courses shall include specific concentration to requirements of the license category. For instance, One- and Two-family license courses shall focus, but not be limited to, residential code requirements.

- 2. Workplace Safety one hour
- 3. Business Practices/Workers' Compensation one hour
- 4. Energy (except Demolition Specialty License) one hour
- 5. Lead Safe Practices (only first renewal cycle) one hour

The remainder of credit hours are to be completed by approved electives.

110.R5: continued

Specialty CSL holders are required to complete the appropriate number of continuing education each two-year renewal cycle as described in 780 CMR 110.R5.4.2. The following hour(s) of continuing education topics are required for six-hour trainings as identified in 780 CMR R5.4.3:

- | | |
|----------------|-----------|
| 1. Code Review | two hours |
|----------------|-----------|

Note: Code review courses shall include a specific concentration to requirements of the license category. For instance, Residential Roof Covering license courses shall focus, but not be limited to: roof covering, underlayment and similar code requirements.

- | | |
|---|----------|
| 2. Workplace Safety | one hour |
| 3. Business Practices/Workers' Compensation | one hour |
| 4. Energy (except Demolition Specialty License) | one hour |
| 5. Lead Safe Practices (only first renewal cycle) | one hour |

Qualified licensees may acquire up to a maximum of six hours of continuing education via on-line training. Remaining hours shall be acquired through in-person, classroom training.

Those offering on-line courses in accordance with 780 CMR 110.R5.4.1 shall take measures to ensure a meaningful learning experience for the licensee including, at a minimum:

1. At the start of each on-line training, a licensee shall be required to affirm to the statement: "Under the pains and penalties of perjury, I attest that, as the licensed construction supervisor requiring continuing education credit, I will personally view all portions of this on-line educational session and will personally answer all questions required of this training."
2. A licensee shall be required to answer a minimum of five questions relating to the material covered each 30-minute period (or more frequently if determined appropriate on-line education provider).
3. A candidate shall answer all questions correctly at the end of each session.
4. If the licensee answers all questions correctly, he or she may advance to the next section.
5. If the licensee answers a question or questions incorrectly, he or she shall be so notified and directed back to the portion of the presentation from which the question is derived.
6. The licensee shall be afforded an opportunity to, again, review the section and answer a similar question(s) as appropriate.
7. Once the licensee answers all questions correctly, he or she shall be allowed to advance to the next portion of the training.
8. In no case shall a licensee be allowed to advance through a section without successfully answering questions relevant to material covered.
9. At the conclusion of a complete on-line training session, a licensee shall be required to successfully complete a final examination comprised of 20 questions, answering at least 16 correctly, and shall again affirm to the statement: "Under the pains and penalties of perjury, I attest that, as the licensed construction supervisor requiring continuing education credit, I have personally viewed all portions and answered all questions required of this training."

Additionally, providers of on-line educational sessions shall take measures to ensure a meaningful learning experience for the licensee by:

10. Allowing the student to log-out of the session (and back in) without penalty.
11. Providing closed-captioning assistance.
12. Revising on-line training subject matter to reflect changes in code requirements each renewal period.
13. Issuing certificates to students reflecting successful completion of the on-line training, including successful completion of training review questions as herein described.

110.R5.4.4 Accessibility. To the extent possible, the BBRS shall ensure that continuing education courses are offered throughout the state and are accessible to all licensees.

110.R5: continued

110.R5.4.5 Renewal of Approval. The BBRs is authorized to establish a procedure for renewal of course approval.

110.R5.4.6 Content. Continuing education consists of approved courses that impart appropriate and related knowledge in the regulated industries. Courses may include relevant materials that are included in licensing exams subject to the limitations imposed in 780 CMR 110.R5.4.6, item 1. The burden of demonstrating that courses impart appropriate and related knowledge is upon the person seeking approval or credit.

Course examinations will not be required for continuing education courses unless they are required by the instructor.

Unless determined by the coordinator, textbooks are not required to be used for continuing education courses. The coordinator shall provide students with a syllabus containing, at a minimum, the course title, the times and dates of the course offering, the names and addresses or telephone numbers and email address of the course coordinator and instructor, and a detailed outline of the subject materials to be covered. Any written or printed material given to students shall be of readable quality and contain accurate and current information.

Upon completion of an approved course, licensees shall earn one hour of continuing education credit for each hour approved by the BBRs. Each continuing education course shall be attended in its entirety in order to receive credit for the number of approved hours. Courses may be approved for full or partial credit, and for more than one regulated industry.

Continuing education credit in an approved course shall be awarded to presenting instructors on the basis of one credit for each hour of preparation for the initial presentation, which may not exceed three hours total credit for each approved course. Continuing education credit may not be earned if the licensee has previously obtained credit for the same course as a licensee or as an instructor within the Current licensing cycle.

The following courses will not be approved for credit:

1. courses designed solely to prepare students for a license examination in a discipline other than CSL;
2. courses in mechanical office skills including typing, speed reading, or other machines or equipment. Computer or business skills courses are allowed, if appropriate and related to the regulated industry of the licensee;
3. courses in motivation, psychology, or any other course not related to the building industry; and
4. courses that are primarily intended to impart knowledge of specific products of specific companies, if the use of the product or products relates to the sales promotion or marketing of one or more of the products discussed.

110.R5.4.7 Course Approval. Courses shall be approved by the BBRs in advance and will be approved on the basis of the applicant's compliance with the provisions of this section relating to continuing education in the regulated industries. The BBRs shall make the final determination as to the approval and assignment of credit hours for courses. Courses shall be at least one hour in length.

Approval shall not be granted for time spent on meals or other unrelated activities. Breaks shall not be accumulated in order to dismiss the class early. Classes shall not be offered to any one student for longer than six hours in one day, excluding meal breaks.

Application for course approval shall be submitted 120 days before the course offering.

Approval is granted for a subsequent offering of identical continuing education courses without requiring a new application if the course is offered within the approved 24-month cycle. The BBRs shall deny future offerings of courses if they are found not to be in compliance with the laws relating to course approval. Courses shall be updated subject to periodic review by the BBRs to ensure currency with technological changes in 780 CMR.

110.R5.4.8 Course Coordinator. Each course of study shall have at least one coordinator, which is a person who is registered with the BBRs, who is responsible for supervising the program and ensuring compliance with all relevant law. Each coordinator shall oversee no more than 12 courses of study.

110.R5: continued

110.R5.4.9 Responsibilities of a Course Coordinator:

1. ensuring compliance with all laws and rules relating to continuing educational offerings governed by the BBRs;
2. ensuring that instructors are qualified to teach the course offering as defined in 780 CMR 110.R5.4.10;
3. maintaining accurate records relating to course offerings, instructors, tests taken by students if required, and student attendance for a period of three years from the date on which the course was completed. These records shall be made available to the BBRs upon request. In the event that a coordinator ceases operation for any reason, the coordinator is responsible for maintaining the records or providing a custodian for the records acceptable to the BBRs. The coordinator shall notify the BBRs of the name and address of that custodian. Under no circumstances shall the BBRs act as custodian of the records;
4. supervising and evaluating courses and instructors. Supervision includes ensuring that all areas of the curriculum are addressed without redundancy and that continuity is present throughout the entire course;
5. providing course completion certificates within ten days of, but not before, completion of the entire course. Course completion certificates shall be completed in their entirety. Course completion certificates shall contain the following statement: "If you have any comments about this course offering, please mail them to the Board of Building Regulations and Standards attn: Education Coordinator." The current address of the Office shall be included. A coordinator may require payment of the course tuition as a condition for receiving the course completion certificate;
6. investigating complaints related to course offerings or instructors. A copy of the written, signed complaint shall be sent to the BBRs within ten working days of course completion. An acknowledgment will be sent upon receipt of complaint *via* email;
7. to be available to instructors and students throughout course offerings and provide to the students and instructor the mailing address, telephone number and email address at which the coordinator can be reached;
8. participate in workshops or instructional programs as reasonably required by the BBRs;
9. furnishing the BBRs, upon request, with copies of course and instructor evaluations and qualifications of instructors. Evaluations shall be completed by students at the time the course is offered and evaluations shall be reviewed by coordinators within five days after the course offering; and
10. notifying the BBRs in writing within ten days of any change in the information in an application for approval on file with the BBRs.

110.R5.4.10 Instructors. Each continuing education course shall have an instructor who is qualified by education, training, or experience to ensure competent instruction. Failure to have only qualified instructors teach at an approved course offering will result in loss of course approval. Coordinators are responsible to ensure that an instructor is qualified to teach the course offering.

1. Continuing education instructors shall have one of the following:
 - a. a four-year degree (bachelor's or equivalent) in any discipline plus two years of practical experience within the previous five years in the subject area being taught;
 - b. a four-year college degree (bachelor's) or graduate degree in the subject area being taught;
 - c. a CSL holder or certified building official with at least three years experience in the subject area being taught; provided the instructor demonstrates proficiency in the subject matter;
 - d. five years' practical experience within the previous ten years in the subject area being taught.

Note: A contractor whose construction license is currently suspended or revoked shall not teach or serve as a continuing education course instructor.

2. Approved instructors are responsible for:
 - a. compliance with all laws and rules relating to continuing education;

110.R5: continued

- b. providing students with current and accurate information;
- c. maintaining an atmosphere conducive to learning in the classroom;
- d. verifying attendance of students, submission of completed course evaluations and certifying course completion;
- e. providing assistance to students and responding to questions relating to course materials; and
- f. attending the workshops or instructional programs that are required by the BBRs.

110.R5.4.11 Prohibited Practices for Coordinators and Instructors. In connection with an approved continuing education course, coordinators and instructors shall not:

1. recommend or promote the services or practices of a particular business;
2. encourage or recruit individuals to engage the services of, or become associated with, a particular business;
3. require students to participate in other programs or services offered by the instructor or coordinator;
4. attempt, either directly or indirectly, to discover questions or answers on an examination for a license;
5. disseminate to any other person specific questions, problems, or information known or believed to be included in licensing examinations;
6. misrepresent any information submitted to the BBRs;
7. fail to cover, or ensure coverage of, major points, issues, and concepts contained in the course outline approved by the BBRs during the approved instruction; or
8. issue inaccurate course completion certificates.

Coordinators shall notify the BBRs within ten days of a felony or gross misdemeanor conviction or of disciplinary action taken against an occupational or professional license held by the coordinator or an instructor teaching an approved course. The notification shall be grounds for the BBRs to withdraw the approval of the coordinator and to disallow the use of the instructor.

110.R5.4.12 Fees. Fees for an approved course of study and related materials shall be clearly identified to students. In the event that a course is canceled for any reason, all fees shall be returned within 15 days from the date of cancellation. In the event that a course is postponed for any reason, students shall be given the choice of attending the course at a later date or having their fees refunded in full within 15 days from the date of postponement. If a student is unable to attend a course or cancels the registration in a course, coordinator policies regarding refunds shall govern.

110.R5.4.13 Facilities. Each course of study shall be conducted in a classroom or other appropriate facility that is accessible and adequate to comfortably accommodate the instructors and the number of students enrolled.

110.R5.4.14 Supplementary Materials. An adequate supply of supplementary materials to be used or distributed in connection with an approved course shall be available at the time and place of the course offering in order to ensure that each student receives all of the necessary materials. Outlines and any other materials that are reproduced shall be of readable quality.

110.R5.4.15 Advertisement. 780 CMR 110.R.4.15 governs the advertising of continuing education courses.

1. Advertising shall be truthful and not deceptive or misleading. Courses shall not be advertised in any manner as approved unless approval has been granted in writing by the BBRs.
2. No advertisement, pamphlet, circular, or other similar materials pertaining to an approved offering shall be circulated or distributed in the Commonwealth unless the following statement is prominently displayed: "This course has been approved by the Massachusetts Board of Building Regulations and Standards for [approved number of hours] hours of continuing [relevant industry] education."
3. Advertising of approved courses shall be clearly distinguishable from the advertisement of other non-approved courses and services.

110.R5: continued

4. The number of hours for which a course has been approved shall be prominently displayed on an advertisement for the course. If the course offering is longer than the number of hours of credit to be given, it shall be clear that credit is not earned for the entire course.

5. Advertising shall comply with regulations for advertisement of private occupational schools, 230 CMR 15.06: *Advertisements and Representations*, and all advertising including, but not limited to false advertising, is governed by 940 CMR 31.04: *False or Misleading Statements or Representations*, violations of which are enforceable under the provisions of M.G.L. c. 93A, the Consumer Protection Act.

110.R5.4.16 Notice to Students. At the beginning of each approved offering, the following notice shall be handed out in printed form or shall be read to students: "This educational offering is recognized by the Massachusetts Board of Building Regulations and Standards as satisfying [approved number of hours] hours of continuing [relevant industry] education."

110.R5.4.17 Audits. The BBRS reserves the right to audit subject offerings with or without notice to the coordinator.

110.R5.4.18 Falsification of Reports. The BBRS may penalize anyone found to have falsified an education report through imposition of: limitations or conditions on, suspension or revocation of a license, course coordinator approval or instructor approval, or a fine up to \$1,000.00, or both. The BBRS reserves the right to audit a licensee's continuing education records.

110.R5.4.19 Waivers and Extensions. If a licensee provides documentation to the BBRS that the licensee or its qualifying person is unable, and will continue to be unable, to attend actual classroom course work because of a physical disability, medical condition, military service or similar reason, attendance at continuing education courses shall be waived for a period not to exceed one two-year cycle. The licensee shall make up delinquent credit hours and pay appropriate fees.

The BBRS may request documentation of the condition upon which the request for waiver is based as is necessary to satisfy the BBRS of the existence of the condition and that the condition does preclude attendance at continuing education courses.

110.R5.4.20 Reporting Requirements. Required continuing education shall be reported in a manner prescribed by the BBRS. Licensees are responsible for maintaining copies of course completion certificates.

110.R5.4.21 Continuing Education Fees. See 801 CMR 4.02: *Fees for Licenses, Permits, and Services to Be Charged By State Agencies* for the following fees:

1. Course Approval:
 - a. initial course application fee for each continuing education course approval sought;
 - b. initial course approval fee for each hour or fraction of one hour. Initial course approval expires on the last day of the 24th month after the course is approved; and
 - c. renewal of course approval fee for each hour or fraction of one hour. Renewal of course approval expires on the last day of the 24th month after the course is renewed.
2. Course Coordinator:
 - a. initial coordinator approval fee. Coordinator may only oversee 12 courses. Initial coordinator approval expires on the last day of the 24th month after the coordinator is approved; and
 - b. renewal of coordinator approval fee. Renewal of coordinator approval expires on the last day of the 24th month after the coordinator is renewed.

NON-TEXT PAGE

CHAPTERS 110.R1 through 110.R7

Chapters 110.R1 through 110.R7 are special regulations particular to certain Massachusetts programs relating to:

- **Licensing Concrete Testing Laboratories - 110.R1**
- **Licensing Concrete Field Testing Technicians - 110.R2**
- **Approving Manufactured Buildings - 110.R3**
- **Registering Native Lumber Producers - 110.R4**
- **Licensing Construction Supervisors - 110.R5**
- **110.R6 is a reserved chapter**
- **Certifying Building Code Enforcement Officials - 110.R5**

These regulations are unique to Massachusetts.

110.R6: RESERVED

NON-TEXT PAGE

CHAPTERS 110.R1 through 110.R7

Chapters 110.R1 through 110.R7 are special regulations particular to certain Massachusetts programs relating to:

- **Licensing Concrete Testing Laboratories - 110.R1**
- **Licensing Concrete Field Testing Technicians - 110.R2**
- **Approving Manufactured Buildings - 110.R3**
- **Registering Native Lumber Producers - 110.R4**
- **Licensing Construction Supervisors - 110.R5**
- **110.R6 is a reserved chapter**
- **Certifying Building Code Enforcement Officials - 110.R5**

These regulations are unique to Massachusetts.

110.R7: CERTIFICATION OF INSPECTORS OF BUILDINGS, BUILDING COMMISSIONERS AND LOCAL INSPECTORS

(Note: 780 CMR 110.R7 is unique to Massachusetts)

110.R7.1 General Provisions

110.R7.1.1 Title. 780 CMR 110.R7.

110.R7.1.2 Definitions. Any terms not defined in 780 CMR 110.R7 shall assume the definition of the term as used elsewhere in 780 CMR.

REGISTRANT. Any individual registered with the BBRS as a building official in the capacity of an inspector of buildings/building commissioner or local inspector.

110.R7.1.3 Scope. 780 CMR 110.R7 shall control all matters relating to qualifications and certification of all building officials engaged in or to be engaged in the administration and enforcement of 780 CMR; categories of certified building officials; procedures for application, issuance, denial and revocation of certifications; approval of training and/or educational programs offered to meet the requirements for certification; maintenance of certification through continuing education; application fees for certification; and enforcement of 780 CMR 110.R7. 780 CMR 110.R7 establishes standards and procedures for certification and requires all persons performing duties with respect to the inspection of building construction for any political subdivision within the Commonwealth to be certified as provided in 780 CMR 110.R7.

110.R7.1.4 Powers and Duties. The BBRS, working through its administrator and other staff, shall have the following responsibilities in addition to all others provided in 780 CMR and 780 CMR 110.R7.

110.R7.1.4.1. Upon recommendations from the Building Official Certification Committee ("BOCC"), established under 780 CMR 110.R7.1.5, to issue certifications to individuals deemed qualified as provided for in 780 CMR 110.R7.

110.R7.1.4.2. To maintain accurate records of all applications for certification and any official action thereon and to make such records available for inspection by the public at all reasonable times.

110.R7.1.4.3. To suspend or revoke a certification upon the establishment of grounds for discipline pursuant to 780 CMR 110.R7.4.1.5.

110.R7.1.4.4. Any person aggrieved by any notice, action, ruling or order of the BBRS, or the BOCC, with respect to 780 CMR 110.R7, may have a right to a hearing as provided for by law.

110.R7.1.5 Inspector Certification Advisory Committee. The BBRS has established the Inspector Certification Advisory Committee, known as the BOCC. The BOCC shall be supported by such staff of the BBRS as may be required for the effective operation of 780 CMR 110.R7.

110.R7.1.5.1 Powers and Duties. The BOCC shall have the responsibility to advise and to recommend to the BBRS on all items relating to the certification of building officials including, but not limited to:

1. Issuing certificates.
2. Reviewing applicant credentials.
3. Maintaining applicant and certified inspector records.
4. Hearing complaints and appeals pertaining to inspector certification.
5. Reviewing and approving all courses of study, seminars, and other educational programs as deemed necessary, for continuing education requirements.
6. Monitoring all appointments to assure compliance with 780 CMR 110.R7.
7. Considering reciprocity with other states (upon petition of the BOCC on forms provided for such purpose).

110.R7: continued

110.R7.1.5.2 Make-up of the Committee. The BOCC shall consist of 11 members appointed by the BBRS as follows:

1. One member of the BBRS or his or her designee.
2. Nine members who are active building officials consisting of:
 - a. One member from each of the four Municipal Building Officials Associations (Southeastern Building Officials Association, Building Officials of Western Massachusetts, Massachusetts Building Commissioners and Inspectors Association, and MetroWest Building Officials Association).
 - b. Four members at large to be appointed by the BBRS, all of whom shall be recommended by the Board of Directors of the Massachusetts Federation of Building Officials.
3. One member from academia who is an educator of construction at the college level (e.g., architectural, civil, structural) to be appointed by the BBRS.
4. One member of the Massachusetts Municipal Association.

110.R7.1.6 Categories of Certification. Categories of certification for building officials are as follows:

110.R7.1.6.1 Inspector of Buildings or Building Commissioner. An individual certified as an inspector of buildings/building commissioner shall perform the duties as defined in 780 CMR and M.G.L. c. 143, as applicable.

110.R7.1.6.2 Local Inspector. An individual certified as a local inspector shall perform the duties as defined in 780 CMR and M.G.L. c. 143, as applicable.

110.R7.1.6.3 Alternate Inspector of Buildings/Building Commissioner. An alternate inspector of buildings/building commissioner shall be certified prior to appointment.

110.R7.1.7 Building Official Appointments.

110.R7.1.7.1. Permanent Appointments. No individual shall be permanently appointed to the position of inspector of buildings, building commissioner or local inspector in a municipal enforcing agency for which a certification requirement has been established by 780 CMR 110.R7, unless that individual has been deemed qualified and certified in that category by the BOCC.

Exception: Conditional appointments may be made pursuant to 780 CMR 110.R7.1.7.4.

110.R7.1.7.2 Reporting by Appointing Authority. Immediately following appointment, the clerk of each city or town shall report to the BBRS, the name, title and status of each new employee who is appointed as an inspector of buildings, building commissioner or local inspector. Said report shall be provided on forms as prescribed by the BBRS for said purpose and shall be submitted in attestation under the pains and penalties of perjury that said new employee meets or exceeds the minimum qualifications as defined by M.G.L. c. 143, § 3 and 780 CMR, as applicable.

110.R7.1.7.3 Historical Note. Any individual employed as inspector of buildings, building commissioner or local inspector and who was in office on November 12, 1992 and who was qualified in accordance with M.G.L. c. 143, § 3 to be in office at time of hire, and who presented acceptable evidence of these facts to the BBRS, shall be deemed certified in the category held on said date, and shall be provided with a certificate by the BBRS.

110.R7.1.7.4 Conditional Appointments. Individuals who meet or exceed the experience requirements pursuant to M.G.L. c. 143, § 3 and 780 CMR, but who are not certified under the provisions of 780 CMR 110.R7, may be appointed on a conditional basis only. If so appointed, these requirements shall be met:

1. Immediately upon appointment, the city or town clerk shall report the conditional appointment to the BBRS in accordance with 780 CMR 110.R7.1.7.2.
2. Within the first six months of employment the conditional appointee shall make application to take the examination(s) required for the appropriate category of certification.

110.R.7: continued

3. Within one year following the first six months of employment a conditional appointee who is appointed as an inspector of buildings/building commissioner shall attain a passing score on all of the examinations required for that category of certification.
4. Within six months following the first six months of employment a conditional appointee who is appointed as a local inspector shall attain a passing score on all of the examinations required for that category of certification.
5. In accordance with 780 CMR 110.R.7.1.7.4.1, a conditional appointee may petition the BOCC in writing for an extension of time to comply with the examination schedule of 780 CMR 110.R.7. Upon establishment of cause, the BOCC may grant an extension as it may consider appropriate.
6. Conditional appointees shall notify the BBRs of any change in the status of their employment, within one month of such change.
7. Any individual conditionally appointed as an inspector of buildings/building commissioner shall first be certified as a local inspector.

110.R.7.1.7.4.1 Requests for Exam Schedule Extension. Upon written petition to the BOCC, any conditional appointee unable to comply with the examination schedule as cited in 780 CMR 110.R.7.1.7.4 may for cause, be granted an extension of time in order to comply. Petitions shall be forwarded to the clerk of the BOCC on forms for such purpose, and addressed to the office of the BBRs. The conditional appointee shall state all reasons to substantiate the request for an extension of time. Conditional appointees who have not attempted the examination schedule as herein defined during the prescribed period shall not be granted an extension, and no conditional appointee shall be afforded more than three extensions of time beyond the prescribed period for the level of certification sought.

110.R.7.1.7.4.2 Notification. The BOCC shall, within ten days of any action taken by the committee pursuant to 780 CMR 110.R.7, notify the appointing authority in writing of such action.

110.R.7.1.7.4.3 Notice of Noncompliance. Any conditional appointee who has not attained passing scores in all examinations required for certification as an inspector of buildings/building commissioner and/or local inspector, and who exhausted extension time as afforded by 780 CMR 110.R.7.1.7.4.1, shall be deemed to be in non-compliance with M.G.L. c. 143, § 3 and unauthorized to serve as a conditional appointee in the position for which they are not yet certified.

110.R.7.2 Requirements for Initial Certification

110.R.7.2.1 Application. Any candidate for certification in any category of building official issued pursuant to 780 CMR 110.R.7 shall submit an application to the BBRs, accompanied by the required application fee (if any), on forms provided for this purpose by the BBRs. The application shall include such information and documentation as the BBRs may require pursuant to 780 CMR 110.R.7.

110.R.7.2.2 Requirements for Certification as a Local Inspector:

110.R.7.2.2.1 Pre-exam Approval. All candidates shall meet or exceed the qualifications for the position of local inspector pursuant to M.G.L. c. 143, § 3 and 780 CMR prior to taking any examinations. The BOCC shall approve all candidates prior to taking any examinations and shall maintain a list of all qualified candidates for any and all city and towns appointing building officials.

110.R.7.2.2.2 Successful Examination. All candidates shall attain a passing score in all examinations required for certification as either a Building Plans Examiner (identified as Exams 1B, 1C, 3B and 3C) or Building Inspector (identified as Exams 1A, 1B and 3B) as defined by the National Certification Program for Construction Code Inspectors ("NCPCCI") or equivalent exam categories as approved by the BBRs for such purpose and as offered by the International Code Council ("ICC").

110.R7: continued

110.R7.2.2.3 Prior Approval for Examination as a Local Inspector. No candidates shall be allowed to take said examinations without prior approval of the BBRS or the BOCC at the discretion of the BBRS.

110.R7.2.3 Requirements for Certification as an Inspector of Buildings/Building Commissioner.

110.R7.2.3.1 Pre-exam Approval. All candidates shall meet or exceed the qualifications for the position of inspector of buildings/building commissioner pursuant to M.G.L. c. 143, § 3 and 780 CMR prior to taking any examinations. All candidates shall meet the examination requirements for certification as a local inspector pursuant to 780 CMR 110.R7.2.2.2, or hold a certification as a local inspector pursuant to 780 CMR 110.R7.2.2. The BOCC shall approve all candidates prior to taking any examinations and shall maintain a list of all qualified candidates for any and all city and towns appointing building officials.

110.R7.2.3.2 Successful Examination. All candidates shall attain a passing score in all examinations required for certification as a Certified Building Official as defined by the International Code Council ("ICC") or equivalent exam categories as approved by the BBRS for such purpose and as offered by the ICC.

Exception: Candidates may choose to attend on-boarding training as approved by the BBRS and as periodically offered. Successful completion of all on-boarding training requirements, including attaining a passing score on any and all requisite examinations, may be substituted for completion of the Codes and Standards Module of the ICC certification examinations as identified above. Candidates who utilize this exception shall also attain passing scores on the ICC Legal and Management Module examinations as identified above and shall satisfy all Local Inspector certification requirements as established by 780 CMR. Candidates who utilize this exception will be issued a Massachusetts Inspector of Buildings/Building Commissioner certification ("MCBO").

110.R7.2.3.3 Prior Approval for Examination as an Inspector of Buildings/Building Commissioner. No candidates shall be allowed to take said examinations without prior approval of the BBRS, or the BOCC at the discretion of the BBRS.

110.R7.2.4 Retired Persons. Any person who has been duly certified in accordance with 780 CMR 110.R7 and who retires from service in good standing, may petition the committee to receive "retired status" certification. Upon approval, said certification shall be denoted "retired" and shall not be deemed revoked. Revocation shall only be invoked for cause. Any person who has been approved for retired status certification and who wishes to reactivate said certification shall comply with the examination schedule as defined in 780 CMR 110.R7 for the level of certification sought.

110.R7.3 Requirements for Maintenance of Certification Status

110.R7.3.1 Continuing Education Requirements. Within each three-year period following initial certification, the registrant to maintain certification shall complete 45 hours of continuing education credit acceptable to the BOCC. Conditional appointees as defined by 780 CMR 110.R7 shall attain at least one contact hour of education credit for each month of employment until such time as the conditional appointee has successfully completed the required examination schedule and is certified as prescribed.

110.R7.3.1.1 Requirements for Energy Code Training. Building officials shall be trained in the energy provisions of the 780 CMR every three years, corresponding with the adoption of the latest edition of the International Energy Conservation Code pursuant to M.G.L. c. 143, § 94 and policy of the BBRS.

110.R7: continued

110.R7.3.2 Course Curriculum. The BOCC may publish a list of acceptable educational programs, courses, seminars, and the like and may also accept educational activities in which registrants have participated after the fact, upon application and review of the course information. The BOCC shall assign credits to each educational/training event and shall issue policies and procedures, separate from 780 CMR 110.R7, relative to continuing education requirements.

110.R7.3.3 Course Log. Each certified individual shall maintain a record of his or her continuing education. Credit hours shall be reported to the BBRS or other approved agencies as prescribed by the policies and procedures of the BOCC, relative to continuing education. The BBRS shall maintain a record of each inspector's progress towards completion of the 45-hour requirement. At the end of each three-year period, each inspector who has successfully attained his or her continuing education requirement shall be duly notified by the BBRS.

110.R7.3.4 Rights and Privileges. In accordance with M.G.L. c. 143, § 99, no building official attending BBRS required educational programs shall lose any rights relative to compensation or vacation.

110.R7.4 Procedures for Complaints

110.R7.4.1 Complaints.

110.R7.4.1.1 Complaint Intake. A complaint about a certified building official shall be in writing and shall be received and reviewed by the administrator, or his or her designee. The administrator may cause the complaint to be investigated further, dismissed for failure to assert a cognizable or actionable claim, or referred to the BOCC for a hearing on the merits. Actions taken pursuant to this section shall be left to the sound discretion of the administrator.

110.R7.4.1.2 Notice of Hearing. If the administrator refers a matter to the BOCC for hearing, reasonable notice of the hearing shall be provided to the certification holder. Mailing of the notice *via* first class mail to the address on record with the BBRS shall be deemed satisfactory notice to the holder. The notice of hearing shall contain:

1. The name of the complainant.
2. The date, time and place of said hearing.
3. The basis of the complaint.
4. Notice that the holder may review the Board's complaint file by appointment.

110.R7.4.1.3 Hearing. Hearings held pursuant to 780 CMR 110.R7.4.1 shall be conducted in accordance with M.G.L. c. 30A and 801 CMR 1.02: *Informal/Fair Hearing Rules*. Any party may be represented by legal counsel at such a hearing. At the hearing, the certification holder shall be permitted to present an opening statement, testify on their own behalf, cross-examine all witnesses, present any relevant witness testimony, present any relevant documentary evidence, and offer a closing argument. Any person offering testimony at the hearing shall be sworn under oath. The BOCC may question any witness and include any records on file with the BBRS as exhibits. The BOCC may, at their discretion, conclude the hearing at any time and issue a recommended decision based on the evidence presented.

If a certification holder does not appear for the hearing, the BOCC may conduct a hearing and render a recommended decision based upon the evidence presented only after making a finding that the certification holder was provided reasonable and proper notice of the hearing as required by 780 CMR 110.R7.4.1.2.

110.R7: continued

110.R7.4.1.4 Decisions and Discipline of Certification Holders. The BOCC shall issue a written decision after the hearing. Decisions shall be issued in a reasonably prompt manner. The decision of the BOCC shall serve as a recommendation to the BBRS and shall be promptly forwarded by the administrator to the full board for review. If after a hearing the BOCC finds that the holder has violated any provision of 780 CMR 110.R7.4.1.5, it may recommend suspension of a certification for a fixed period of time, revocation of a certification permanently, or a reprimand of the certification holder. Further, the BOCC may recommend that any order include appropriate remedial or disciplinary conditions.

Once forwarded to the BBRS, the board shall either adopt the recommendation in its entirety, adopt the recommendation with amendment, reject the recommendation in its entirety, or remand the matter to the BOCC further proceedings. A certificate holder whose certification is revoked may apply in writing to the Board for reinstatement no sooner than one year from the date of the revocation.

110.R7.4.1.5 Grounds for Discipline. The following shall be grounds for discipline of a certification holder:

1. The holder has obtained a certification by fraud or misrepresentation;
2. The holder has aided or abetted in practice as a certified building official any person not authorized to practice as a certified building official under the provisions of 780 CMR 110.R7;
3. The holder has fraudulently or deceitfully practiced as a certified building official;
4. The holder has been grossly negligent or has engaged in misconduct in the performance of any of his or her duties;
5. The holder has failed to maintain continuing education requirements as specified in 780 CMR 110.R7;
6. The holder has been found to have failed to report an offer, or bribe, or other favor in a proceeding under 780 CMR 110.R7;
7. The holder has made a false or misleading statement to the BBRS, or has made a material omission in any submission to the BBRS;
8. The holder has failed to appropriately enforce the provisions of 780 CMR as prescribed by M.G.L. c. 143, § 3;
9. The holder has engaged in any conduct in violation of 780 CMR or any state or federal law rendering them unsuitable to be certified as a building official.
10. The holder has been found to have violated state ethics laws by the State Ethics Commission.
11. The holder failed to cooperate in an investigation being conducted by the BBRS or its administrator.

110.R7.4.1.6 Appeal. A decision made after a hearing shall be considered final when it is issued by the BBRS. Any party aggrieved by a final decision of the BBRS may appeal to superior court within 30 days of receipt thereof pursuant to M.G.L. c. 30A, § 14.

110.R7.4.1.7 Employment of an Uncertified Individual. In accordance with M.G.L. c. 143, § 3, no municipality may offer employment to, retain for employment or permanently appoint any individual who is not certified in accordance with 780 CMR 110.R7, except on a conditional basis in accordance with 780 CMR 110.R7.1.7.4.

APPENDIX A - SIZING & CAPACITY OF GAS PIPING - RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

2. Where solar thermal systems involve matters of potable water and/or wastewater, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 24: FUEL GAS

For the fuel gas provisions of Chapter 24 of 780 CMR 51.00, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 25 THROUGH 33: PLUMBING

For the plumbing provisions of Chapters 25 through 33 of 780 CMR 51.00, *see* 248 CMR 10.00: *Uniform State Plumbing Code*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 34 THROUGH 43: ELECTRICAL

For the electrical provisions of Chapters 34 through 43 of 780 CMR 51.00, *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. Provisions of 527 CMR 12.00 related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapter 44: REFERENCED STANDARDS (no amendments)

APPENDICES

Appendix A: SIZING AND CAPACITIES OF GAS PIPING (Reserved)

Appendix B: SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS (Reserved)

Appendix C: EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS (Reserved)

Appendix D: RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEMS (Reserved)

Appendix E: MANUFACTURED HOUSING USED AS DWELLINGS (Adopted as revised)

AE102.2 Revise the section as follows:

AE102.2 Additions, Alterations or Repairs. Additions, alterations and repairs made to a manufactured home shall conform to 780 CMR 51.00 and the specialized codes.

AE201 Add two sentences to the definition of "MANUFACTURED HOME" as follows:

A manufactured home (mobile home) is not a manufactured building. For manufactured buildings, *see* 780 CMR 110.R3.

AE301.4 Reserved

AE302 through AE307 Reserved

AE402 Reserved

AE505 Reserved

AE507 Reserved

APPENDIX AA – STRETCH ENERGY CODE -

AN ACT RELATIVE TO GREEN COMMUNITIES

As part of Chapter 169 of the Acts of 2008, Massachusetts approved a stretch energy code concerning renewable and alternative energy and energy efficiency in the commonwealth that may be adopted locally. The stretch energy code establishes energy provisions above those required by the base building code. The stretch energy code must be formally adopted by a municipality in accordance with methodologies by law.

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

SECTION AU102 (RB102) GENERAL DEFINITIONS

SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

SECTION AU103 (RB103) SOLAR-READY ZONE

AU103.1 (RB103.1) General. New detached one- and two-family dwellings, and multiple single-family dwellings (townhouses) with not less than 600 ft² (55.74 m²) of roof area oriented between 110° and 270° of true north shall comply with sections AU103.2 through AU103.8 (RB103.2 through RB103.8).

EXCEPTIONS:

1. New residential buildings with a permanently installed on-site renewable energy system.
2. A building with a solar-ready zone that is shaded for more than 70% of daylight hours annually.
3. Buildings and structures as designed and shown in construction documents that do not meet the conditions for a solar-ready zone area.

AU103.2 (RB103.2) Construction Document Requirements for Solar-ready Zone. Construction documents shall indicate the solar-ready zone where applicable.

AU103.3 (RB103.3) Solar-ready Zone Area. The total solar-ready zone area shall consist of an area not less than 300 ft² (27.87 m²) exclusive of mandatory access or set back areas as required by 527 CMR: *Board of Fire Prevention Regulations*. New multiple single-family dwellings (townhouses) three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 ft² (185.8 m²) per dwelling shall have a solar-ready zone area of not less than 150 ft² (13.94 m²). The solar-ready zone shall be composed of areas not less than five feet (1,524 mm) in width and not less than 80 ft² (7.44 m²) exclusive of access or set back areas as required by 527 CMR.

AU103.4 (RB103.4) Obstructions. Solar-ready zones shall consist of an area free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.

Note: Nothing in AU103.4 (RB103.4) shall require any construction documents to be redesigned or reconfigured so as to create a solar-ready zone area.

AU103.5 (RB103.5) Roof Load Documentation. The structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.

AU103.6 (RB103.6) Interconnection Pathway. Construction documents shall indicate pathways for routing of conduit or plumbing from the solar-ready zone to the electrical service panel or service hot water system.

AU103.7 (RB103.7) Electrical Service Reserved Space. The main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

AU103.8 (RB103.8) Construction Documentation Certificate. A permanent certificate, indicating the solar-ready zone and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicuous location by the builder or registered design professional.

Appendix AA STRETCH ENERGY CODE

AA101 Purpose and Adoption. The purpose of the stretch energy code is to provide a more energy efficient code alternative for new buildings. The stretch energy code may be adopted or rescinded by any municipality in the commonwealth in the manner prescribed by law.

AA102 Applicability. Municipalities that have adopted the stretch energy code shall use the energy efficiency requirements of this appendix as provided in AA103 and AA104. These requirements replace all previous stretch energy code requirements.

51.00: continued

AA103 New Buildings.

AA103.1 R-use Buildings. In all R-use buildings, of four stories or less above grade plane with one or more dwelling units, each dwelling unit shall comply with section N1106 (R406) of 780 CMR 51.00.

AA103.2 Large Area and High Energy Use Buildings. All buildings over 100,000 ft², and new supermarkets, laboratories and conditioned warehouses over 40,000 ft² shall comply with 780 CMR 13.00: *Energy Efficiency* and shall demonstrate energy use per ft² at least 10% below the energy requirements of ANSI/ASHRAE/IESNA 90.1 *Appendix G* Performance Rating Method on either a site or source energy basis. The additional efficiency package options selected in accordance with C406.1 shall be included in calculating the baseline building performance value.

Exception: Exclusively R-use buildings complying with AA103.1 dwelling unit requirements.

AA103.3 Other New Buildings. New buildings not covered in AA103.1 and AA103.2 shall comply with 780 CMR 13.00: *Energy Efficiency* or Chapter 11 of 780 CMR 51.00 as applicable based on the use and occupancy of the building.

AA104 Existing Buildings. For alterations, renovations, additions or repairs of existing buildings in these municipalities, the energy efficiency requirements of 780 CMR 13.00 or Chapter 11 of 780 CMR 51.00 shall be used as applicable based on the use and occupancy of the building.

NON-TEXT PAGE

APPENDIX B - SIZING OF VENTING SYSTEMS - RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

2. Where solar thermal systems involve matters of potable water and/or wastewater, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 24: FUEL GAS

For the fuel gas provisions of Chapter 24 of 780 CMR 51.00, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 25 THROUGH 33: PLUMBING

For the plumbing provisions of Chapters 25 through 33 of 780 CMR 51.00, *see* 248 CMR 10.00: *Uniform State Plumbing Code*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 34 THROUGH 43: ELECTRICAL

For the electrical provisions of Chapters 34 through 43 of 780 CMR 51.00, *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. Provisions of 527 CMR 12.00 related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapter 44: REFERENCED STANDARDS (no amendments)

APPENDICES

Appendix A: SIZING AND CAPACITIES OF GAS PIPING (Reserved)

Appendix B: SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS (Reserved)

Appendix C: EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS (Reserved)

Appendix D: RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEMS (Reserved)

Appendix E: MANUFACTURED HOUSING USED AS DWELLINGS (Adopted as revised)

AE102.2 Revise the section as follows:

AE102.2 Additions, Alterations or Repairs. Additions, alterations and repairs made to a manufactured home shall conform to 780 CMR 51.00 and the specialized codes.

AE201 Add two sentences to the definition of "MANUFACTURED HOME" as follows:

A manufactured home (mobile home) is not a manufactured building. For manufactured buildings, *see* 780 CMR 110.R3.

AE301.4 Reserved

AE302 through AE307 Reserved

AE402 Reserved

AE505 Reserved

AE507 Reserved

APPENDIX C - EXIT TERMINALS OF MECHANICAL DRAFT - **RESERVED**

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following 2015 *International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS

51.00: continued

2. Where solar thermal systems involve matters of potable water and/or wastewater, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 24: FUEL GAS

For the fuel gas provisions of Chapter 24 of 780 CMR 51.00, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 25 THROUGH 33: PLUMBING

For the plumbing provisions of Chapters 25 through 33 of 780 CMR 51.00, *see* 248 CMR 10.00: *Uniform State Plumbing Code*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 34 THROUGH 43: ELECTRICAL

For the electrical provisions of Chapters 34 through 43 of 780 CMR 51.00, *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. Provisions of 527 CMR 12.00 related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapter 44: REFERENCED STANDARDS (no amendments)

APPENDICES

Appendix A: SIZING AND CAPACITIES OF GAS PIPING (Reserved)

Appendix B: SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS (Reserved)

Appendix C: EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS (Reserved)

Appendix D: RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEMS (Reserved)

Appendix E: MANUFACTURED HOUSING USED AS DWELLINGS (Adopted as revised)

AE102.2 Revise the section as follows:

AE102.2 Additions, Alterations or Repairs. Additions, alterations and repairs made to a manufactured home shall conform to 780 CMR 51.00 and the specialized codes.

AE201 Add two sentences to the definition of "MANUFACTURED HOME" as follows:

A manufactured home (mobile home) is not a manufactured building. For manufactured buildings, *see* 780 CMR 110.R3.

AE301.4 Reserved

AE302 through AE307 Reserved

AE402 Reserved

AE505 Reserved

AE507 Reserved

APPENDIX D – RECOMMENDED PROCEDURES FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEM - **RESERVED**

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

2. Where solar thermal systems involve matters of potable water and/or wastewater, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 24: FUEL GAS

For the fuel gas provisions of Chapter 24 of 780 CMR 51.00, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 25 THROUGH 33: PLUMBING

For the plumbing provisions of Chapters 25 through 33 of 780 CMR 51.00, *see* 248 CMR 10.00: *Uniform State Plumbing Code*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 34 THROUGH 43: ELECTRICAL

For the electrical provisions of Chapters 34 through 43 of 780 CMR 51.00, *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. Provisions of 527 CMR 12.00 related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapter 44: REFERENCED STANDARDS (no amendments)

APPENDICES

Appendix A: SIZING AND CAPACITIES OF GAS PIPING (Reserved)

Appendix B: SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS (Reserved)

Appendix C: EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS (Reserved)

Appendix D: RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEMS (Reserved)

Appendix E: MANUFACTURED HOUSING USED AS DWELLINGS (Adopted as revised)

AE102.2 Revise the section as follows:

AE102.2 Additions, Alterations or Repairs. Additions, alterations and repairs made to a manufactured home shall conform to 780 CMR 51.00 and the specialized codes.

AE201 Add two sentences to the definition of "MANUFACTURED HOME" as follows:

A manufactured home (mobile home) is not a manufactured building. For manufactured buildings, *see* 780 CMR 110.R3.

AE301.4 Reserved

AE302 through AE307 Reserved

AE402 Reserved

AE505 Reserved

AE507 Reserved

APPENDIX E – MANUFACTURED HOUSING USED AS DWELLINGS - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following 2015 *International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS

51.00: continued

2. Where solar thermal systems involve matters of potable water and/or wastewater, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*.

Chapter 24: FUEL GAS

For the fuel gas provisions of Chapter 24 of 780 CMR 51.00, *see* 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 25 THROUGH 33: PLUMBING

For the plumbing provisions of Chapters 25 through 33 of 780 CMR 51.00, *see* 248 CMR 10.00: *Uniform State Plumbing Code*. Provisions of 248 CMR related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapters 34 THROUGH 43: ELECTRICAL

For the electrical provisions of Chapters 34 through 43 of 780 CMR 51.00, *see* 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*. Provisions of 527 CMR 12.00 related to work otherwise governed by 780 CMR 51.00 shall be retained if not in conflict with other sections of 780 CMR 51.00.

Chapter 44: REFERENCED STANDARDS (no amendments)

APPENDICES

Appendix A: SIZING AND CAPACITIES OF GAS PIPING (Reserved)

Appendix B: SIZING OF VENTING SYSTEMS SERVING APPLIANCES EQUIPPED WITH DRAFT HOODS, CATEGORY I APPLIANCES, AND APPLIANCES LISTED FOR USE WITH TYPE B VENTS (Reserved)

Appendix C: EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS (Reserved)

Appendix D: RECOMMENDED PROCEDURE FOR SAFETY INSPECTION OF AN EXISTING APPLIANCE SYSTEMS (Reserved)

Appendix E: MANUFACTURED HOUSING USED AS DWELLINGS (Adopted as revised)

AE102.2 Revise the section as follows:

AE102.2 Additions, Alterations or Repairs. Additions, alterations and repairs made to a manufactured home shall conform to 780 CMR 51.00 and the specialized codes.

AE201 Add two sentences to the definition of "MANUFACTURED HOME" as follows:

A manufactured home (mobile home) is not a manufactured building. For manufactured buildings, *see* 780 CMR 110.R3.

AE301.4 Reserved

AE302 through AE307 Reserved

AE402 Reserved

AE505 Reserved

AE507 Reserved

APPENDIX F – PASSIVE RADON GAS CONTROLS – AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

Appendix F: PASSIVE RADON GAS CONTROLS (Adopted as revised)

AF101.1 Revise the section as follows:

AF101.1 General. This appendix contains minimum requirements for new construction in the high radon potential counties as listed in Table AF101(1) regardless of the radon levels at the site. These requirements are intended to provide a passive means of resisting radon gas entry and prepare the dwelling for post-construction radon mitigation, if necessary. *See* Figure AF102. Active construction techniques, rather than passive techniques, shall be permitted to be used where approved.

Alternatively, the passive system requirements of ANSI/AARST Standard Designation #CCAH: *Reducing Radon in New Construction of One & Two Family Dwellings and Townhouses*, 2013 may be used for new construction in Zone 1, or approved equal system.

Irrespective of which approach is used, no testing is required as follows:

1. for the radon levels at the site prior to construction;
2. for the radon control system when completed; or
3. in the building after completion of the project.

Therefore, such testing shall not be a condition of issuing a certificate of occupancy.

AF102.1 Revise the definition of "GAS-PERMEABLE LAYER" as follows:

GAS-PERMEABLE LAYER. A gas-permeable layer shall consist of one of the following:

1. A uniform layer of clean aggregate that is not less than four inches (102 mm) thick. The aggregate shall consist of material that will pass through a two inch (51 mm) sieve and be retained by a ¼-inch (6.4-mm) sieve.
2. A uniform layer of sand (native or fill) that is not less than four inches (102 mm) thick and that is overlain by a soil gas collection mat or soil gas matting installed in accordance with the manufacturer's instructions. The soil gas mat or matting shall be designed for this purpose and condition, and have the capacity to freely transport soil gases to the collection point from the most remote area.

AF103.2.2 Revise the subsection as follows:

AF103.2.2 Sumps. Sumps open to soil or serving as the termination point for subslab drain tile loops shall be covered with a gasketed or sealed lid. Sumps used as the suction point in a sub slab depressurization system shall have a lid designed to accommodate the vent pipe. Sumps used as a floor drain shall have a lid equipped with a trapped inlet. Drainage systems that lead outside the foundation walls shall be isolated or trapped so as not to short-circuit the depressurization system.

AF103.3.1 Revise the subsection as follows:

AF103.3.1 Soil-gas-retarder. The soil in basements and enclosed crawl spaces shall be covered with a soil-gas-retarder. The soil-gas-retarder shall be lapped not less than 12 inches (305 mm) at joints and shall extend to foundation walls enclosing the basement or crawl space. The soil gas-retarder shall fit closely around any pipe, wire or other penetrations of the material. Punctures or tears in the material shall be sealed or covered with additional sheeting. The membrane shall extend upward six inches and shall be sealed to the perimeter footing or wall with an ASTM C290 class 25 or higher sealant or equal.

AF103.3.2 Revise the subsection as follows:

AF103.3.2 "T" Fitting and Vent Pipe. A "T" fitting shall be inserted beneath the soil-gas-retarder and be connected to a three-inch minimum vertical vent pipe. The vent pipe shall extend through the conditioned space of the dwelling and terminate not less than 12 inches (305 mm) above the roof in a location not less than ten feet (3,048 mm) away from any window or other opening into the conditioned spaces of the building that is less than two feet (610 mm) below the exhaust point. The horizontal legs of the "T" fitting shall connect to two five-foot long pieces of four-inch diameter perforated pipe laid horizontally in a 50 in² bed of gravel, filled with the same gravel as used in the gas-permeable layer.

51.00: continued

AF103.4.2 Revise the subsection as follows:

AF103.4.2 Soil-gas-retarder. A soil-gas-retarder shall be placed on top of the gas-permeable layer prior to casting the slab or placing the floor assembly. The soil-gas retarder shall cover the entire floor area with separate sections lapped not less than 12 inches (305 mm) and shall extend upward six inches and be sealed to the wall with an ASTM C290 class 25 or higher sealant or equal. The soil-gas-retarder shall fit closely around any pipe, wire, or other penetrations of the material. Punctures or tears in the material shall be sealed or covered. Under-slab insulation, if used, shall be placed on top of the sheeting.

AF103.4.3 Revise the subsection as follows:

AF103.4.3 "T" Fitting and Vent Pipe. Before a slab is cast or other floor system is installed, a "T" fitting shall be inserted below the slab or other floor system and the soil-gas-retarder. The "T" fitting shall be connected to a three-inch minimum vertical vent pipe. The vent pipe shall extend through the conditioned space of the dwelling and terminate not less than 12 inches (305 mm) above the roof in a location not less than ten feet (3,048 mm) away from any window or other opening into the conditioned spaces of the building that is less than two feet (610 mm) below the exhaust point. The horizontal legs of the "T" fitting shall connect to two five-foot long pieces of four-inch diameter perforated pipe laid horizontally in a 50 in² bed of gravel, filled with the same gravel as used in the gas-permeable layer.

Appendix G: PIPING STANDARDS FOR VARIOUS APPLICATIONS (Reserved)

Appendix H: PATIO COVERS (Adopted in full)

Appendix I: PRIVATE SEWAGE DISPOSAL (Adopted as amended)

AI101.1 Revise the section as follows:

AI101.1 Scope. Private sewage disposal systems shall conform to the requirements of 310 CMR 15.000: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage*, and any additional legal restrictions imposed by the municipal health department.

Appendix J: EXISTING BUILDINGS AND STRUCTURES (Adopted as amended)

AJ101.1 Revise the section as follows:

AJ101.1 General. The purpose of *Appendix J* is to encourage the continued use or reuse of legally existing buildings and structures. The provisions of *Appendix J* are intended to permit work in existing buildings that is consistent with the purpose of 780 CMR 51.00. Compliance with these provisions shall be deemed to meet the requirements of 780 CMR 51.00.

Features of existing construction which do not meet the requirements of 780 CMR 51.00 for new construction shall be presumed to have met the regulations, codes or laws in effect at the time of construction or alteration and, if so, shall be deemed to be existing nonconforming. Unless stated otherwise, nothing in *Appendix J* shall require the upgrading or replacement of any existing nonconforming feature or component of an existing building, provided the feature, component or system is in serviceable condition. Components or features of an existing building which, in the opinion of the building official, are dangerous, unsafe, damaged, significantly deteriorated or which otherwise present a threat to occupants or to public safety shall be remediated in accordance with 780 CMR 51.00.

Any new building system or portion thereof shall conform to 780 CMR 51.00 for new construction to the fullest extent practicable. However, individual components of an existing building system may be repaired or replaced without requiring that system to comply fully with 780 CMR 51.00 unless specifically required by *Appendix J*.

For compliance of work governed by other codes, including the specialized codes, see section R101.4.

APPENDIX G - PIPING STANDARDS FOR VARIOUS APPLICATIONS - RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSC);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

AF103.4.2 Revise the subsection as follows:

AF103.4.2 Soil-gas-retarder. A soil-gas-retarder shall be placed on top of the gas-permeable layer prior to casting the slab or placing the floor assembly. The soil-gas retarder shall cover the entire floor area with separate sections lapped not less than 12 inches (305 mm) and shall extend upward six inches and be sealed to the wall with an ASTM C290 class 25 or higher sealant or equal. The soil-gas-retarder shall fit closely around any pipe, wire, or other penetrations of the material. Punctures or tears in the material shall be sealed or covered. Under-slab insulation, if used, shall be placed on top of the sheeting.

AF103.4.3 Revise the subsection as follows:

AF103.4.3 "T" Fitting and Vent Pipe. Before a slab is cast or other floor system is installed, a "T" fitting shall be inserted below the slab or other floor system and the soil-gas-retarder. The "T" fitting shall be connected to a three-inch minimum vertical vent pipe. The vent pipe shall extend through the conditioned space of the dwelling and terminate not less than 12 inches (305 mm) above the roof in a location not less than ten feet (3,048 mm) away from any window or other opening into the conditioned spaces of the building that is less than two feet (610 mm) below the exhaust point. The horizontal legs of the "T" fitting shall connect to two five-foot long pieces of four-inch diameter perforated pipe laid horizontally in a 50 in² bed of gravel, filled with the same gravel as used in the gas-permeable layer.

Appendix G: PIPING STANDARDS FOR VARIOUS APPLICATIONS (Reserved)

Appendix H: PATIO COVERS (Adopted in full)

Appendix I: PRIVATE SEWAGE DISPOSAL (Adopted as amended)

AI101.1 Revise the section as follows:

AI101.1 Scope. Private sewage disposal systems shall conform to the requirements of 310 CMR 15.000: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage*, and any additional legal restrictions imposed by the municipal health department.

Appendix J: EXISTING BUILDINGS AND STRUCTURES (Adopted as amended)

AJ101.1 Revise the section as follows:

AJ101.1 General. The purpose of *Appendix J* is to encourage the continued use or reuse of legally existing buildings and structures. The provisions of *Appendix J* are intended to permit work in existing buildings that is consistent with the purpose of 780 CMR 51.00. Compliance with these provisions shall be deemed to meet the requirements of 780 CMR 51.00.

Features of existing construction which do not meet the requirements of 780 CMR 51.00 for new construction shall be presumed to have met the regulations, codes or laws in effect at the time of construction or alteration and, if so, shall be deemed to be existing nonconforming. Unless stated otherwise, nothing in *Appendix J* shall require the upgrading or replacement of any existing nonconforming feature or component of an existing building, provided the feature, component or system is in serviceable condition. Components or features of an existing building which, in the opinion of the building official, are dangerous, unsafe, damaged, significantly deteriorated or which otherwise present a threat to occupants or to public safety shall be remediated in accordance with 780 CMR 51.00.

Any new building system or portion thereof shall conform to 780 CMR 51.00 for new construction to the fullest extent practicable. However, individual components of an existing building system may be repaired or replaced without requiring that system to comply fully with 780 CMR 51.00 unless specifically required by *Appendix J*.

For compliance of work governed by other codes, including the specialized codes, *see* section R101.4.

APPENDIX H - PATIO COVERS - NO AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

AF103.4.2 Revise the subsection as follows:

AF103.4.2 Soil-gas-retarder. A soil-gas-retarder shall be placed on top of the gas-permeable layer prior to casting the slab or placing the floor assembly. The soil-gas retarder shall cover the entire floor area with separate sections lapped not less than 12 inches (305 mm) and shall extend upward six inches and be sealed to the wall with an ASTM C290 class 25 or higher sealant or equal. The soil-gas-retarder shall fit closely around any pipe, wire, or other penetrations of the material. Punctures or tears in the material shall be sealed or covered. Under-slab insulation, if used, shall be placed on top of the sheeting.

AF103.4.3 Revise the subsection as follows:

AF103.4.3 "T" Fitting and Vent Pipe. Before a slab is cast or other floor system is installed, a "T" fitting shall be inserted below the slab or other floor system and the soil-gas-retarder. The "T" fitting shall be connected to a three-inch minimum vertical vent pipe. The vent pipe shall extend through the conditioned space of the dwelling and terminate not less than 12 inches (305 mm) above the roof in a location not less than ten feet (3,048 mm) away from any window or other opening into the conditioned spaces of the building that is less than two feet (610 mm) below the exhaust point. The horizontal legs of the "T" fitting shall connect to two five-foot long pieces of four-inch diameter perforated pipe laid horizontally in a 50 in² bed of gravel, filled with the same gravel as used in the gas-permeable layer.

Appendix G: PIPING STANDARDS FOR VARIOUS APPLICATIONS (Reserved)

Appendix H: PATIO COVERS (Adopted in full)

Appendix I: PRIVATE SEWAGE DISPOSAL (Adopted as amended)

AI101.1 Revise the section as follows:

AI101.1 Scope. Private sewage disposal systems shall conform to the requirements of 310 CMR 15.000: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage*, and any additional legal restrictions imposed by the municipal health department.

Appendix J: EXISTING BUILDINGS AND STRUCTURES (Adopted as amended)

AJ101.1 Revise the section as follows:

AJ101.1 General. The purpose of *Appendix J* is to encourage the continued use or reuse of legally existing buildings and structures. The provisions of *Appendix J* are intended to permit work in existing buildings that is consistent with the purpose of 780 CMR 51.00. Compliance with these provisions shall be deemed to meet the requirements of 780 CMR 51.00.

Features of existing construction which do not meet the requirements of 780 CMR 51.00 for new construction shall be presumed to have met the regulations, codes or laws in effect at the time of construction or alteration and, if so, shall be deemed to be existing nonconforming. Unless stated otherwise, nothing in *Appendix J* shall require the upgrading or replacement of any existing nonconforming feature or component of an existing building, provided the feature, component or system is in serviceable condition. Components or features of an existing building which, in the opinion of the building official, are dangerous, unsafe, damaged, significantly deteriorated or which otherwise present a threat to occupants or to public safety shall be remediated in accordance with 780 CMR 51.00.

Any new building system or portion thereof shall conform to 780 CMR 51.00 for new construction to the fullest extent practicable. However, individual components of an existing building system may be repaired or replaced without requiring that system to comply fully with 780 CMR 51.00 unless specifically required by *Appendix J*.

For compliance of work governed by other codes, including the specialized codes, *see* section R101.4.

APPENDIX I - PRIVATE SEWAGE DISPOSAL - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on January 1, 2018.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ **Shop the Bookstore** and any of the I-Codes may be purchased from the International Code Council (ICC) @ **iccsafe.org**.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- **International Building Code (IBC) Transition**
- **International Residential Code (IRC) Transition.**

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

AF103.4.2 Revise the subsection as follows:

AF103.4.2 Soil-gas-retarder. A soil-gas-retarder shall be placed on top of the gas-permeable layer prior to casting the slab or placing the floor assembly. The soil-gas retarder shall cover the entire floor area with separate sections lapped not less than 12 inches (305 mm) and shall extend upward six inches and be sealed to the wall with an ASTM C290 class 25 or higher sealant or equal. The soil-gas-retarder shall fit closely around any pipe, wire, or other penetrations of the material. Punctures or tears in the material shall be sealed or covered. Under-slab insulation, if used, shall be placed on top of the sheeting.

AF103.4.3 Revise the subsection as follows:

AF103.4.3 "T" Fitting and Vent Pipe. Before a slab is cast or other floor system is installed, a "T" fitting shall be inserted below the slab or other floor system and the soil-gas-retarder. The "T" fitting shall be connected to a three-inch minimum vertical vent pipe. The vent pipe shall extend through the conditioned space of the dwelling and terminate not less than 12 inches (305 mm) above the roof in a location not less than ten feet (3,048 mm) away from any window or other opening into the conditioned spaces of the building that is less than two feet (610 mm) below the exhaust point. The horizontal legs of the "T" fitting shall connect to two five-foot long pieces of four-inch diameter perforated pipe laid horizontally in a 50 in² bed of gravel, filled with the same gravel as used in the gas-permeable layer.

Appendix G: PIPING STANDARDS FOR VARIOUS APPLICATIONS (Reserved)

Appendix H: PATIO COVERS (Adopted in full)

Appendix I: PRIVATE SEWAGE DISPOSAL (Adopted as amended)

AI101.1 Revise the section as follows:

AI101.1 Scope. Private sewage disposal systems shall conform to the requirements of 310 CMR 15.000: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage*, and any additional legal restrictions imposed by the municipal health department.

Appendix J: EXISTING BUILDINGS AND STRUCTURES (Adopted as amended)

AJ101.1 Revise the section as follows:

AJ101.1 General. The purpose of *Appendix J* is to encourage the continued use or reuse of legally existing buildings and structures. The provisions of *Appendix J* are intended to permit work in existing buildings that is consistent with the purpose of 780 CMR 51.00. Compliance with these provisions shall be deemed to meet the requirements of 780 CMR 51.00.

Features of existing construction which do not meet the requirements of 780 CMR 51.00 for new construction shall be presumed to have met the regulations, codes or laws in effect at the time of construction or alteration and, if so, shall be deemed to be existing nonconforming. Unless stated otherwise, nothing in *Appendix J* shall require the upgrading or replacement of any existing nonconforming feature or component of an existing building, provided the feature, component or system is in serviceable condition. Components or features of an existing building which, in the opinion of the building official, are dangerous, unsafe, damaged, significantly deteriorated or which otherwise present a threat to occupants or to public safety shall be remediated in accordance with 780 CMR 51.00.

Any new building system or portion thereof shall conform to 780 CMR 51.00 for new construction to the fullest extent practicable. However, individual components of an existing building system may be repaired or replaced without requiring that system to comply fully with 780 CMR 51.00 unless specifically required by *Appendix J*.

For compliance of work governed by other codes, including the specialized codes, see section R101.4.

APPENDIX J - EXISTING BUILDINGS & STRUCTURES - AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

AF103.4.2 Revise the subsection as follows:

AF103.4.2 Soil-gas-retarder. A soil-gas-retarder shall be placed on top of the gas-permeable layer prior to casting the slab or placing the floor assembly. The soil-gas retarder shall cover the entire floor area with separate sections lapped not less than 12 inches (305 mm) and shall extend upward six inches and be sealed to the wall with an ASTM C290 class 25 or higher sealant or equal. The soil-gas-retarder shall fit closely around any pipe, wire, or other penetrations of the material. Punctures or tears in the material shall be sealed or covered. Under-slab insulation, if used, shall be placed on top of the sheeting.

AF103.4.3 Revise the subsection as follows:

AF103.4.3 "T" Fitting and Vent Pipe. Before a slab is cast or other floor system is installed, a "T" fitting shall be inserted below the slab or other floor system and the soil-gas-retarder. The "T" fitting shall be connected to a three-inch minimum vertical vent pipe. The vent pipe shall extend through the conditioned space of the dwelling and terminate not less than 12 inches (305 mm) above the roof in a location not less than ten feet (3,048 mm) away from any window or other opening into the conditioned spaces of the building that is less than two feet (610 mm) below the exhaust point. The horizontal legs of the "T" fitting shall connect to two five-foot long pieces of four-inch diameter perforated pipe laid horizontally in a 50 in² bed of gravel, filled with the same gravel as used in the gas-permeable layer.

Appendix G: PIPING STANDARDS FOR VARIOUS APPLICATIONS (Reserved)

Appendix H: PATIO COVERS (Adopted in full)

Appendix I: PRIVATE SEWAGE DISPOSAL (Adopted as amended)

AI101.1 Revise the section as follows:

AI101.1 Scope. Private sewage disposal systems shall conform to the requirements of 310 CMR 15.000: *The State Environmental Code, Title 5: Standard Requirements for the Siting, Construction, Inspection, Upgrade and Expansion of On-site Sewage Treatment and Disposal Systems and for the Transport and Disposal of Septage*, and any additional legal restrictions imposed by the municipal health department.

Appendix J: EXISTING BUILDINGS AND STRUCTURES (Adopted as amended)

AJ101.1 Revise the section as follows:

AJ101.1 General. The purpose of *Appendix J* is to encourage the continued use or reuse of legally existing buildings and structures. The provisions of *Appendix J* are intended to permit work in existing buildings that is consistent with the purpose of 780 CMR 51.00. Compliance with these provisions shall be deemed to meet the requirements of 780 CMR 51.00.

Features of existing construction which do not meet the requirements of 780 CMR 51.00 for new construction shall be presumed to have met the regulations, codes or laws in effect at the time of construction or alteration and, if so, shall be deemed to be existing nonconforming. Unless stated otherwise, nothing in *Appendix J* shall require the upgrading or replacement of any existing nonconforming feature or component of an existing building, provided the feature, component or system is in serviceable condition. Components or features of an existing building which, in the opinion of the building official, are dangerous, unsafe, damaged, significantly deteriorated or which otherwise present a threat to occupants or to public safety shall be remediated in accordance with 780 CMR 51.00.

Any new building system or portion thereof shall conform to 780 CMR 51.00 for new construction to the fullest extent practicable. However, individual components of an existing building system may be repaired or replaced without requiring that system to comply fully with 780 CMR 51.00 unless specifically required by *Appendix J*.

For compliance of work governed by other codes, including the specialized codes, see section R101.4.

51.00: continued

AJ102.1 Revise the section as follows:

AJ102.1 General. Regardless of the category of work being performed, the work shall not cause the structure to become unsafe or adversely affect the performance of the building; shall not cause a system regulated by 780 CMR 51.00 to become unsafe, hazardous, insanitary or overloaded; and unless expressly permitted by these provisions, shall not make the building any less compliant with 780 CMR 51.00 or to any previously approved alternative arrangements than it was before the work was undertaken.

AJ102.3 Revise the section as follows:

AJ102.3 Smoke, Carbon Monoxide and Heat Protection. Smoke, carbon monoxide and heat protection shall be provided when required by this section and designed, located and installed in accordance with the provisions for new construction. See sections R314, R314.5, and R315.

AJ102.3.1 through AJ102.3.3 Add the subsections as follows:

AJ102.3.1 Adding or Creating One or More Sleeping Rooms.

1. **Single-family Dwelling.** When one or more sleeping rooms are added or created to an existing dwelling, the entire dwelling shall be provided with smoke, heat and carbon monoxide protection.
2. **Two-family Dwelling.** When one or more sleeping rooms are added or created to one dwelling unit, that unit shall be provided with smoke, heat and carbon monoxide protection detectors. When sleeping rooms are added or created to both units, the entire building shall be provided with smoke, heat and carbon monoxide protection.
3. **Townhouses Dwelling Unit.** When one or more sleeping rooms are added or created to an existing dwelling unit, the entire unit shall be provided with smoke, heat, and carbon monoxide protection.

AJ102.3.2 Complete Reconstruction. If a dwelling or townhouse building undergoes reconstruction such that more than 50% of walls and ceilings are open to framing, then the entire existing building shall be provided with smoke, heat and carbon monoxide protection.

AJ102.3.3 Adding an Attached Garage. If a garage is created under or attached to an existing dwelling unit, a heat detector shall be provided in the garage in accordance with R314.8.

AJ102.7.1 Add subsection as follows:

AJ102.7.1 Documentation of Compliance Alternatives. The building official shall ensure that the BBRS is provided with information regarding any and all compliance alternatives accepted by the building official within two weeks of acceptance.

AJ102.10 through AJ102.14 Add sections and associated subsections as follows:

AJ102.10 Unlined Chimneys. Where new HVAC appliances are connected to an unlined chimney, the chimney lining requirements of 248 CMR: *Board of State Examiners of Plumbers and Gas Fitters* or 527 CMR: *Board of Fire Prevention Regulations*, as applicable, and those of the appliance manufacturer, shall be satisfied. If the appliance is a solid fuel-burning appliance, the chimney shall be relined to satisfy requirements both of the code for new construction and those of the manufacturer, as applicable.

AJ102.11 Latent Conditions. When latent conditions are observed and which are determined by the licensed construction supervisor, the owner or the building official to be dangerous or unsafe, or when a component or system is determined to be unserviceable, said conditions shall be corrected in accordance with applicable provisions of 780 CMR 51.00. A building permit shall be obtained or the building permit shall be amended in accordance with the provisions of section R105 in order to reflect the necessary required work and the approval shall be obtained from the building official prior to commencement of the corrections.

51.00: continued

Exception: If the public safety so warrants, corrective actions are permitted to be made prior to amending the building permit application, providing that the building official is notified in writing within 24 hours of actions taken pursuant to this exception. This exception shall not be construed as to authorize constructive approval nor set aside the requirements to amend the permit application, nor shall the authority of the building official to enforce 780 CMR 51.00 be abridged. Such corrective actions shall be documented by the construction supervisor or the owner and submitted to the building official within 48 hours of the completion of the action under this exception. Such corrective work shall not be concealed until the building official has inspected and approved the work.

AJ102.12 Energy Efficiency. See section N1100.

AJ102.13 Roofing and Reroofing. See Chapter 9 of 780 CMR 51.00 generally and section R907.

AJ102.14 Accessibility for Persons with Disabilities. Accessibility requirements shall be in accordance with 521 CMR: *Architectural Access Board*.

AJ103.1 Revise the subsection as follows:

AJ103.1 General. If a building permit is required at the request of the prospective permit applicant, the building official or his or her legal designee may meet with the prospective applicant to discuss plans for any proposed work under these provisions prior to the application for the permit. The purpose of this preliminary meeting is for the building official to gain an understanding of the prospective applicant's intentions for the proposed work, and to determine, together with the prospective applicant, the specific applicability of these provisions.

AJ301.1.2 Delete the subsection in its entirety.

AJ301.2 and AJ301.3 Delete in their entirety.

AJ401.2.1 Add the subsection as follows:

AJ401.2.1 Emergency Escape and Rescue Windows. For one- and two-family dwellings and townhouses of no more than three stories in height, all emergency escape windows from sleeping rooms shall have a net clear opening of 3.3 ft² (0.307 m²). The minimum net clear opening shall be 20 inches by 24 inches (508 mm by 610 mm) in either direction except that windows in sleeping rooms of existing dwellings which do not conform to these requirements may be replaced without conforming to these dimensional requirements, provided that the windows do not significantly reduce the existing opening size.

Exception: Replacement windows utilized as emergency escape and rescue windows, other than double-hung windows, shall generally conform to the requirements of this section without conforming to the cited dimensional requirements, provided that such replacement windows do not significantly reduce the existing opening size.

AJ401.4 Replace the subsection as follows:

AJ401.4 Structural. Unreinforced masonry townhouse buildings shall have parapet bracing and wall anchors installed at the roofline whenever a reroofing permit is issued if required by 780 CMR 34.00: *Existing Structures*. Such parapet bracing and wall anchors shall be of an approved design. Where renovations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural renovation.

AJ501.1 Revise the subsection as follows:

AJ501.1 Newly Constructed Elements. Additions, newly constructed elements, components and systems shall comply with the requirements of 780 CMR 51.00.

Exceptions:

1. Operable windows may be added without requiring compliance with the light and ventilation requirements of section R303.
2. Newly installed electrical equipment shall comply with the requirements of section AJ501.5.

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. *See 527 CMR 12.00: Massachusetts Electrical Code (Amendments).*

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, *see 780 CMR 34.00: Existing Building Code.*

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (*see 801 CMR 4.00: Rates, as applicable*) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES)
(Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

51.00: continued

SECTION AU102 (RB102) GENERAL DEFINITIONS

SOLAR-READY ZONE. A section or sections of the roof or building overhang designated and reserved for the future installation of a solar photovoltaic or solar thermal system.

SECTION AU103 (RB103) SOLAR-READY ZONE

AU103.1 (RB103.1) General. New detached one- and two-family dwellings, and multiple single-family dwellings (townhouses) with not less than 600 ft² (55.74 m²) of roof area oriented between 110° and 270° of true north shall comply with sections AU103.2 through AU103.8 (RB103.2 through RB103.8).

EXCEPTIONS:

1. New residential buildings with a permanently installed on-site renewable energy system.
2. A building with a solar-ready zone that is shaded for more than 70% of daylight hours annually.
3. Buildings and structures as designed and shown in construction documents that do not meet the conditions for a solar-ready zone area.

AU103.2 (RB103.2) Construction Document Requirements for Solar-ready Zone. Construction documents shall indicate the solar-ready zone where applicable.

AU103.3 (RB103.3) Solar-ready Zone Area. The total solar-ready zone area shall consist of an area not less than 300 ft² (27.87 m²) exclusive of mandatory access or set back areas as required by 527 CMR: *Board of Fire Prevention Regulations*. New multiple single-family dwellings (townhouses) three stories or less in height above grade plane and with a total floor area less than or equal to 2,000 ft² (185.8 m²) per dwelling shall have a solar-ready zone area of not less than 150 ft² (13.94 m²). The solar-ready zone shall be composed of areas not less than five feet (1,524 mm) in width and not less than 80 ft² (7.44 m²) exclusive of access or set back areas as required by 527 CMR.

AU103.4 (RB103.4) Obstructions. Solar-ready zones shall consist of an area free from obstructions, including but not limited to vents, chimneys, and roof-mounted equipment.

Note: Nothing in AU103.4 (RB103.4) shall require any construction documents to be redesigned or reconfigured so as to create a solar-ready zone area.

AU103.5 (RB103.5) Roof Load Documentation. The structural design loads for roof dead load and roof live load shall be clearly indicated on the construction documents.

AU103.6 (RB103.6) Interconnection Pathway. Construction documents shall indicate pathways for routing of conduit or plumbing from the solar-ready zone to the electrical service panel or service hot water system.

AU103.7 (RB103.7) Electrical Service Reserved Space. The main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

AU103.8 (RB103.8) Construction Documentation Certificate. A permanent certificate, indicating the solar-ready zone and other requirements of this section, shall be posted near the electrical distribution panel, water heater or other conspicuous location by the builder or registered design professional.

Appendix AA STRETCH ENERGY CODE

AA101 Purpose and Adoption. The purpose of the stretch energy code is to provide a more energy efficient code alternative for new buildings. The stretch energy code may be adopted or rescinded by any municipality in the commonwealth in the manner prescribed by law.

AA102 Applicability. Municipalities that have adopted the stretch energy code shall use the energy efficiency requirements of this appendix as provided in AA103 and AA104. These requirements replace all previous stretch energy code requirements.

APPENDIX K – SOUND TRANSMISSION - NO AMENDMENTS

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following 2015 *International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. See 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, see 780 CMR 34.00: *Existing Building Code*.

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (see 801 CMR 4.00: *Rates*, as applicable) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) (Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

APPENDIX L - PERMIT FEES - RESERVED - SEE 801 CMR 4.00

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following 2015 *International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. See 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, see 780 CMR 34.00: *Existing Building Code*.

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (see 801 CMR 4.00: *Rates, as applicable*) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) (Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

APPENDIX M – HOME DAY CARE - RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. See 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, see 780 CMR 34.00: *Existing Building Code*.

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (see 801 CMR 4.00: *Rates, as applicable*) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) (Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

APPENDIX N – VENTING METHODS - RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. See 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, see 780 CMR 34.00: *Existing Building Code*.

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (see 801 CMR 4.00: *Rates*, as applicable) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) (Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

APPENDIX P - SIZING OF WATER PIPING SYSTEM - RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are **unofficial versions** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. See 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, see 780 CMR 34.00: *Existing Building Code*.

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (see 801 CMR 4.00: *Rates*, as applicable) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) (Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

APPENDIX Q

RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following 2015 *International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ iccsafe.org.

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. See 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, see 780 CMR 34.00: *Existing Building Code*.

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (see 801 CMR 4.00: *Rates*, as applicable) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) (Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

APPENDIX R - LIGHT STRAW-CLAY CONSTRUCTION - RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. See 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, see 780 CMR 34.00: *Existing Building Code*.

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (see 801 CMR 4.00: *Rates*, as applicable) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) (Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

APPENDIX S - STRAWABLE CONSTRUCTION - RESERVED

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following *2015 International Codes as published by the International Code Council (ICC)*.

- The International Building Code (IBC);
- International Residential Code (IRC);
- International Existing Building Code (IEBC);
- International Mechanical Code (IMC);
- International Energy Conservation Code (IECC);
- International Swimming Pool and Spa Code (ISPSC);
- Portions of the International Fire Code (IFC).

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are *unofficial versions* and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. See 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, see 780 CMR 34.00: *Existing Building Code*.

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (see 801 CMR 4.00: *Rates*, as applicable) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) (Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.

APPENDIX T - RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING - **RESERVED**

The ninth edition building code became first effective on October 20, 2017 and, with a shortened concurrency period, the new code came into full force and effect on **January 1, 2018**.

The new, ninth edition code is based on modified versions of the following **2015 International Codes as published by the International Code Council (ICC)**.

- **The International Building Code (IBC);**
- **International Residential Code (IRC);**
- **International Existing Building Code (IEBC);**
- **International Mechanical Code (IMC);**
- **International Energy Conservation Code (IECC);**
- **International Swimming Pool and Spa Code (ISPSA);**
- **Portions of the International Fire Code (IFC).**

Massachusetts amends these code fairly significantly to accommodate for unique issues in the commonwealth. This package of amendments revises the IRC only. Please see base code amendments for changes to other listed codes that comprise the ninth edition.

Please remember that the Massachusetts amendments posted on-line are ***unofficial versions*** and are meant for convenience only. Official versions of the Massachusetts amendments may be purchased from the State House Bookstore @ [Shop the Bookstore](#) and any of the I-Codes may be purchased from the International Code Council (ICC) @ [iccsafe.org](#).

Additionally, the ICC publishes transition documents that identify changes from the 2009 to the 2015 I-Codes for those who may have interest.

- [International Building Code \(IBC\) Transition](#)
- [International Residential Code \(IRC\) Transition](#).

Note: *The residential code is part of the overall building code, which is referred to as 780 CMR. It is considered to be Chapter 51 in the overall code, which is why you will see reference to 780 CMR Chapter 51 in the amendments. The residential code is applicable to detached one- and two-family dwellings, multiple-family dwellings (townhouses) not more than three stories in height above the grade plane and/or their accessory structures not more than three stories in height above grade. See the base code for other building types.*

51.00: continued

AJ501.4 Revise the subsection as follows:

AJ501.4 Structural. The minimum design loads for the structure shall be the loads applicable at the time the building was constructed, provided that a dangerous condition is not created. Structural elements that are uncovered during the course of the alteration and that are found to be unsound or dangerous shall be made to comply with the applicable requirements of 780 CMR 51.00. Where alterations may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural alterations.

AJ501.5 Revise the subsection as follows:

AJ501.5 Electrical Equipment and Wiring. See 527 CMR 12.00: *Massachusetts Electrical Code (Amendments)*.

AJ601.5 Add a subsection as follows:

AJ601.5 Structural. Where reconstruction may decrease the structural performance of the existing building, such proposed activities shall be evaluated by a registered design professional for adequacy, prior to such actual structural reconstruction.

AJ701 Add a section as follows:

AJ701 HISTORIC BUILDINGS

AJ701.1 General. For historic building requirements, see 780 CMR 34.00: *Existing Building Code*.

Appendix K: SOUND TRANSMISSION (Adopted in full)

Appendix L: PERMIT FEES (see 801 CMR 4.00: *Rates*, as applicable) (Reserved)

Appendix M: HOME DAY CARE – R-3 OCCUPANCY (Reserved)

Appendix N: VENTING METHODS (Reserved)

Appendix O: AUTOMATIC VEHICULAR GATES (Adopted in full)

Appendix P: SIZING OF WATER PIPING SYSTEM (Reserved)

Appendix Q (Reserved)

Appendix R: LIGHT STRAW-CLAY CONSTRUCTION (Reserved)

Appendix S: STRAWABLE CONSTRUCTION (Reserved)

Appendix T: RECOMMENDED PROCEDURE FOR WORST-CASE TESTING OF ATMOSPHERIC VENTING SYSTEMS UNDER N1102.4 OR N1105 CONDITIONS \leq 5 ACH₅₀ (Reserved)

Appendix U: SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS, MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES)
(Adopted as amended)

Delete Appendix U and replace as follows:

SECTION AU101 (RB101) SCOPE

AU101.1 (RB101.1) General. These provisions shall be applicable for new construction, except additions.