

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.