

APPENDIX G - FLOOD RESISTANT CONSTRUCTION IN COASTAL DUNE REPLACE IN ITS ENTIRETY

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 revise the IBC, IEBC, IMC, and IECC.

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.**

780 CMR: MASSACHUSETTS AMENDMENTS TO THE *INTERNATIONAL BUILDING CODE 2015*

CHAPTER 115: APPENDICES

APPENDIX A EMPLOYEE QUALIFICATIONS	(Not adopted)
APPENDIX B BOARD OF APPEALS	(Not adopted)
APPENDIX C GROUP U—AGRICULTURAL BUILDINGS	(Adopted with amendments)

C101.2 and C101.3 Add two sections as follows:

C101.2 Occupancy Thresholds. Buildings that exceed an occupancy load of 100, that would otherwise be classified as Group U Agricultural, shall be classified in accordance with their intended use.

Exception: Riding arenas shall have an occupancy load limit of 100.

C101.3 H-Use. Agricultural buildings used to store commercial fertilizers, herbicides, or pesticides shall comply with 527 CMR: *Board of Fire Prevention Regulations*, 780 CMR, and M.G.L. c. 132B with its associated regulations, as applicable.

C102.3 Delete entire section

Table C102.1 revise the term "ALLOWABLE AREA (square feet)" by adding "b" after the "a".

Table C102.1 Add footnote b as follows:

b. Greenhouses that comply with snow-load requirements are exempt from the area requirements set forth in C102.

APPENDIX D FIRE DISTRICTS	(Not adopted)
APPENDIX E SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS	(Not adopted)
APPENDIX F RODENT-PROOFING	(Adopted in full)
APPENDIX G FLOOD-RESISTANT CONSTRUCTION IN COASTAL DUNE	(Adopted but replaced in its entirety with the following)

G301.1 General. Work subject to the requirements of this appendix shall be designed by a registered design professional. Work located in both flood hazard areas and coastal dunes shall meet the requirements for both areas. Where requirements are duplicative the more stringent requirement shall apply.

G301.2 Construction Documents. Construction documents in accordance with section 1612.5 shall be submitted as applicable for work in coastal dunes. Construction documents shall indicate proposed details of floor, wall, foundation support components, loading computations, and other essential technical data used to meet the requirements of this appendix. In addition and as part of the permit application for construction in coastal dunes, the building official shall require submission of one of the construction documents specified in (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.

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(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).

G301.3 Elevation of Structures in Coastal Dunes. 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 with the exception of pilings or pile caps 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 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 with the exception of pilings or pile caps 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 and the Wetlands Protection regulations at 310 CMR 10.21 through 10.35. Enclosures are not permitted below the lowest horizontal structural member of the lowest floor.

G301.4 Foundations. Foundations shall be designed in accordance with section 18, ASCE 7 and ASCE 24. Anchorage of buildings and structures shall be designed and connected to resist flotation, collapse or permanent lateral movement due to structural loads and stresses from flooding equal to the base flood. Foundations for work meeting the elevation requirements of section G301.3 shall consist of open pilings without footings to allow the movement of the dune.

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.

APPENDIX H SIGNS

(Adopted in full)

APPENDIX I PATIO COVER

(Adopted in full)

APPENDIX J GRADING

(Adopted in full)

APPENDIX K ADMINISTRATIVE PROVISIONS

(Not adopted)

APPENDIX L EARTHQUAKE RECORDING INSTRUMENTATION

(Not adopted)

APPENDIX M TSUMANI-GENERATED FLOOD HAZARD

(Not adopted)

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 below. These requirements replace all previous stretch energy code requirements.

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AA103 New Buildings.

AA 103.1 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: *Massachusetts Residential Code*.

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 square foot 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 per 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: *Massachusetts Residential Code* 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: *Energy Efficiency* or Chapter 11 of 780 CMR 51.00: *Massachusetts Residential Code* shall be used as applicable based on the use and occupancy of the building.

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