

780 CMR: MASSACHUSETTS AMENDMENTS TO THE *INTERNATIONAL BUILDING CODE 2021*

**780 CMR 51.00: MASSACHUSETTS RESIDENTIAL CODE  
(Amendments to the 2021 International Residential Code)**

**CHAPTER R4 FOUNDATIONS**

**Revise and replace section R401.3 Drainage 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 not fewer than 6 inches (152 mm) within the first 10 feet (3048 mm). Temporary and finished grading shall not direct or create flooding or damage to adjacent property during or after completion of construction.

**Revise and replace section R401.4.1 Geotechnical evaluation as follows:**

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

**Revise and replace section R402.2 Concrete as follows:**

**R402.2 Concrete.** Concrete shall have a minimum specified compressive strength of  $f'_c$ , as shown in Table R402.2. Concrete subject to moderate or severe weathering as indicated in Table R301.2(1) shall be air entrained as specified in Table R402.2. The maximum weight of fly ash, other pozzolans, silica fume, slag or blended cements that is included in concrete mixtures for garage floor slabs and for exterior porches, carport slabs and steps that will be exposed to deicing chemicals shall not exceed the percentages of the total weight of cementitious materials specified in Section 19.3.3.4 of ACI 318. Materials used to produce concrete and testing thereof shall comply with the applicable standards listed in Chapters 19 and 20 of ACI 318 or ACI 332.

**Revise and replace section R403.1 General 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 that 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.

**Delete “or R403.1.3” from the first sentence of R403.1.1 Minimum size.**

**Add new subsection R403.1.2 as follows:**

**R403.1.2 Isolated concrete footings.** In detached one- and two-family dwellings that are three *stories* or less in height and constructed with stud bearing walls, isolated plain concrete footings supporting columns or pedestals are permitted.

**Revise and replace section R404.1.7 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 (including wood scraps), cobbles and boulders, shall be placed in lifts not exceeding 12 inches in thickness and shall be mechanically compacted. Foundation walls shall be properly braced prior to the setting of a manufactured building.

**Add new subsection R406.2.1 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.

**Delete the Exception for R408.7 Flood resistance.**