

Important Code Requirements for the 2009 Michigan Residential Code (MRC)

Effective: April 9, 2011

The following information is provided to illustrate some of the more significant changes to the MRC as well as remind you about other recent changes that are often missed.

This is not a complete list of all changes or code requirements.

R105.2 Work Exempt from Permit

Accessory structures 200 square feet or less are exempt from building permits but still require a zoning permit to regulate setbacks and height.

Decks 200 square feet or less **may** be constructed without "*in ground*" footings although additional support/bracing will be needed. If deck is over 30 inches above grade or if it serves the main exit door additional requirements may apply – consult the Building Official.

R202 Definitions

Added definition of "Agricultural or Agricultural Purposes" to help clarify when a farm barn *may be exempt* from a building permit (*Zoning permit still required locally*).

R202 Definitions

Added definition of "Attic, Habitable" (70 square feet minimum and headroom heights as per section R305) and added live load, emergency escape and rescue, smoke alarm, and vertical egress requirements for these areas

R312 Guards (new requirement includes Decks)

Guards are required when surface is located more than 30 inches above floor or grade below at any point within 36 inches horizontally to the edge of the open side and the guard needs to be 36" minimum high above adjacent fixed seating (benches)

R314 Smoke Alarms

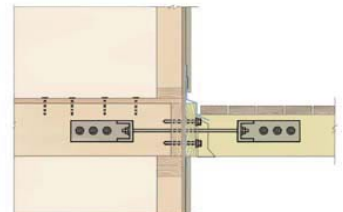
New exception was added so that adding smoke alarms for installation, alterations, or repairs of plumbing or mechanical systems is not required but will still be required for all other interior work that requires permit

R315 Carbon Monoxide Alarms

Added requirements for carbon monoxide alarms in new dwellings when there is a fuel fired appliance or an attached garage - includes requirements to add alarms for all permits to interior when there is a fuel fired appliance or an attached garage

R502.2.2.1 Deck Ledger Connections (new requirement includes Decks)

This is a new section that gives prescriptive requirements for attaching deck ledgers to the house rim boards. For the first time, deck ledger connection, fasteners, and spacing will be indicated in the Code. The Code will also allow for alternate lateral load tensioning devices to be used in lieu of the prescriptive fastening tables.



R602.10 Wall Bracing

This section has been completely rewritten to provide technical accuracy and clarity. Code no longer differentiates between exterior and interior braced walls.

R612.3 Window Fall Prevention Devices

This section now requires window fall prevention devices (when bottom edge of opening is less than 24" above floor and is more than 72" above exterior grade) to meet ASTM F 2090 which will meet emergency escape release mechanism requirements including:

- Self-acting (automatic)
- Prohibit passage of a 4" sphere
- Emergency escape operation must include a release mechanism
- Operates without tools or keys
- Operates without special knowledge
- Operates in all weather conditions
- Requires ≤15lb of force to operate
- Minimum net clear openings for

R613 Structural Insulated Panel Wall Construction

This section was added and gives all requirements for SIP wall construction but does not apply to floor or roof panels

R806.1 Attic Ventilation

The minimum size of ventilation openings has been reduced from 1/8" to 1/16" to guard against entry of insects. Potential problem with this smaller size if when you paint over and seal up smaller holes

Table R905.2.4.1 and IBC Table 1507.2.7 Asphalt Roof Shingles

These tables were added and include ASTM D 7158 D, G, or H as alternate approved test standard for wind load testing for shingles

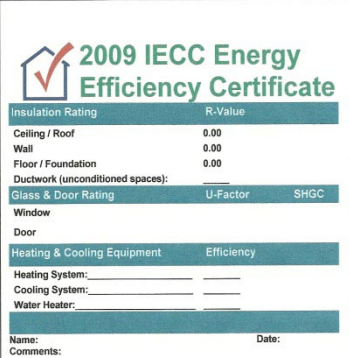
AG 106 and IBC 3109.5 Swimming Pool Entrapment

These sections in the MRC and MBC have both been changed for swimming pool entrapment avoidance to match the recently passed Virginia Graeme Baker Pool and Safety Act

ENERGY: 2009 Michigan Uniform Energy Code

The new Energy Code is more robust requiring careful planning and will apply to most improvement projects and all new construction.

1. INSULATION REQUIREMENTS appear to be about 15% more restrictive. There is an increase in insulation thicknesses to R-20 in many locations with the prescriptive method and a U.35 or better for windows and doors.
2. PROGRAMMABLE THERMOSTATS are required in all new construction.
3. GAS POOL HEATERS can no longer have a pilot & must be on a timer.
4. POOL COVERS. Heated pools must have a pool cover to reduce evaporation. Pools heated to above 90F must have an *insulated* pool cover insulated to a minimum of R-12
5. LIGHT BULBS. At least 50% installed in new homes must be energy efficient.
6. BLOWER DOOR TEST. Energy compliance may include a 'blower door test' to assure that air leakage for the building is within prescribed limits.
7. PERMANENT CERTIFICATE attached to the electric panel listing R-values & equipment
8. DUCTS. Sealing of all, test for leakage and increased insulation were required.



The image shows a form titled "2009 IECC Energy Efficiency Certificate". It includes a logo of a house with a checkmark. The form has several sections with labels and input fields:

Insulation Rating	R-Value
Ceiling / Roof	0.00
Wall	0.00
Floor / Foundation	0.00
Ductwork (unconditioned spaces):	

Glass & Door Rating	U-Factor	SHGC
Window		
Door		

Heating & Cooling Equipment	Efficiency
Heating System: _____	_____
Cooling System: _____	_____
Water Heater: _____	_____

Name: _____ Date: _____
Comments: _____

MECHANICAL

IRC M1503.4 IMC 505.2

Exhaust hood systems capable of exhausting in excess of 400 cfm will require makeup air to match – needs to have means of closure and also automatically controlled to start and operate at same time as the exhaust – no requirement for make up air to be conditioned

IRC TABLE M1502.4.4.1 IMC TABLE 504.6.4.1

There is a new table that gives equivalent lengths of dryer exhaust duct fittings which you use when determining allowable length of dryer exhaust ducts but you can still use manufacturer's instructions to determine length

IRC M1502.4.5 IMC 504.6.5

Where the clothes dryer exhaust duct is concealed within building construction, the equivalent length shall be identified on permanent tag and be within 6 feet of the duct connection



IRC M1502.5 IMC 504.6.7

Protective shield plates will now be required for clothes dryer exhaust ducts that are closer than 1 ¼" to surface of framing

IRC M1602.2

Outdoor and return air cannot be taken from unconditioned attics or boiler rooms

IRC G2411.1 IFGC 310.1.1

CSST gas piping systems shall be bonded to the electrical service grounding electrode system at the point where the gas service enters the building and bonding jumper needs to be at least 6 AWG copper wire or equivalent or check manufacturers installation requirements

IRC G2415.4 IFGC 404.4

Gas piping shall not penetrate building foundation walls at any point below grade

IRC P2503.6 IPC 312.9

Shower liner tests are now required and specific requirements are listed

ELECTRIC:

E4002.14 TAMPER-PROOF RECEPTACLES REQUIRED.

ALL receptacles installed will be required to be 'tamper-proof'.

E3902 INCREASED COVERAGE FOR GFCI.

GFCI protection will increase to include ALL basement receptacles and ALL garage receptacles. EXCEPTION: Circuits protecting burglar and fire alarms.

E3902.11 ARC FAULT CIRCUIT BREAKERS.

All circuits that supply bedrooms be protected by a Combination Type Arc-Fault-Circuit-Interrupter.

E4002.8 & E4002.9 DAMP AND WET LOCATIONS

All 125 V 15 & 20 amp receptacles located in wet locations shall be listed for such use.

