



FCCIP



7th Edition 1-2 Family Building Code Exclusively In Effect

The 7th Edition of the Massachusetts State Building Code for 1 & 2 family dwellings is exclusively effective as of January 1, 2008. All permit applications received after this date must comply with these new regulations. It is the contractor's responsibility to have in his/her possession a copy of the current code and ensure that any project complies with its regulations. Copies can be purchased at the State Bookstore at 436 Dwight St. in Springfield or online:

www.sec.state.ma.us/. This is a stand-alone code for 1 & 2 family structures. The base or commercial 7th Edition of the Massachusetts Building Code is due to be published this year.

Since the power point presentation given to contractors in October, there have been amendments to the 7th edition. These are available online by visiting www.fccip.org and following the link to 7th Edition amendments. They are also summarized below:

7th Edition Amendment Highlights

Topic	Section	Requirement
Emergency escape	5310.1.2	Minimum height 24", Minimum width 20"
Means of Egress	5311.41	Exception allows the two separate exit doors to be located on different levels with walk-outs
Smoke detectors	5313.1	Must be photoelectric or photoelectric/ionization combination
CO detectors	5313.4.1	Must have standby power(battery back-up in most cases)
CO placement	5313.4.3	Outside each bedroom and no more than 10ft from bedroom door
Frost protection	5403.1.4.1	Exception excludes detached garages from requirement
Span calculator	5502.3	Permits use of AF&PA Maximum Span Calculator(on-line) in place of tables for joists/rafters
Flue cross-section	6001.12.1	1/10 of fireplace opening
Snow Loads	T5301.2(5)	FCCIP member towns reduced to 50
Wind Loads	T5301.2(4)	FCCIP member towns reduced to <90

Highlight of 7th Edition Changes

Topic	Section	Requirement
Plans to Fire Chief	5110.7	When application includes fire protection systems, set of plans must be left with fire chief
CSL Presence	5116.1	Required to be present for the installation of foundation, structural frame, energy conservation, fire protection systems, special construction such as chimneys/fire places, fire-separation wall
Groundwater	5116.1	CSL must report presence of ground water to BO before pouring footings
Balcony live load	5301.5	Balconies (see definition p.524) 60 lb.
Deck live load	5301.5	Decks (see definition p.526) 40 lb.
Deck attachment	5502.2.1	Cannot be achieved by use of toenails or nails subject to withdrawal. If connection cannot be verified during inspection, decks shall be self-supporting
Exterior walls	5302.1	Within 3ft of property line must be 1 hr. fire rating from both sides
Bath ventilation	5303.3	½ baths: window or mech.ventilation; Full bath: mech. ventilation required, window not.
Intake openings	5303.4	Must be 10'. from plumbing and heating vents, chimneys and other contaminants or 2'below
Min. room area	5304.1	1 habitable room at least 150sft, all others at least 70sft and >or = 7' in any direction
Ceiling Height	5305.1	7' min. in habitable rooms, except that beams at 4'o.c. or more may be 6'-6" 6'8" min for non-habitable basements, except that beams and other obstructions may be 6'4"

Topic	Section	Requirement
Tempered glass	5308.4	Required if within 60" of landing or bottom step and less than 60" from floor
Garage ductwork	5309.1.1	Ductwork in an attached garage must be 26 gauge, min, no openings into garage
Emergency escape	5310.1	Basements with habitable space shall have at least one escape opening & 1 in each bedroom Location: not more than 44" from floor, may be a bulkhead if certain requirements are met
	5310.1	Minimum size 5.7 sq.ft., except for double hung (3.3 sq.ft.), and grade floor openings (5 sq.ft)
	5310.2	Window wells that are part of emergency escape must be 3'x3' min with ladders when >44"
Means of egress	5311.2.1	Attachment of stairs and similar items can't depend on toenails or nails subject to withdrawal
Understair protection	5311.2.2	½" sheetrock (min.) on walls and underside of stairs when enclosed and accessible
Exit doors	5311.4.2	Two doors required: 1 must be 3-0 x 6-8 (cannot exit through garage) 2 nd door may be a slider or 2-8 (not 2-6) x 6-8 and may exit through garage if garage has 2-8 x 6-8 side hinged dor
Landings	5311.4.3	Must be at least as wide as door and 36" min in length (direction of travel)
Open risers	5311.5.3 .3	5" max opening unless stairway is less than 30" in height
Heat detectors	5313.3	Required in attached garages and garage under dwelling. Must be interconnected with smokes
CO detectors	5313.4	Located on each story, outside every bedroom. Must be hardwired with standby power.
Sprinklers	5313.5.1	Required in dwellings greater than 14,400 sq. ft.
Foam thermal barrier	5314.1.2	½" gypsum board(min) except in attics and crawlspaces (see 5314.2.3)
Drainage	5401.3	Grade must have a minimum slope away from house of 6" in 10ft.
Frost protection	5403.1.4 .1	Accessory structures greater than 400sq. ft (except garages) must have frost protection of 4ft.
Slopes	5403.1.7 .1	Foundation clearances from ascending and descending slopes are regulated by this section
ICF Foundations	5404.4	Architect/engineer stamp, not more than 2 stories above grade, reinforcement requirements
Girder/header spans	5502.5(1)	Important note: most cases require more than 1 jack support on each end. Jacks must be continuous. (see back page)
Horizontal firestop	5602.8	Firecaulk required every 10ft horizontally in wall cavities
Wall bracing	5602.10	Important minimum sheathing requirements for corners adjacent to openings. For walls that support roof only with garage door openings may have a 4:1 aspect ratio (an 8ft high wall may have 2ft corner sheathing provided it is blocked and edge nailed 6" o.c. min)
Rafter span tables	5802.5.1	Fccip towns use 50lb ground snow load. Raised ceilings have adjustment factor Values are the same for ceilings attached to rafters or ceilings not attached to rafters
Rafter/joist connect	5802.5.1 9	See table on p.737 for # of nails required
Pitch<3 in 12	5802.3	Structural ridge required
Truss Bracing	5802.10. 3	In the absence of specific bracing requirements, trusses must be braced in accordance with Building Component Safety Information (BCSI 1-03)
Truss connection	5802.10. 5	Truss to wall connection must have approved connector
Attic Access	5807.1	22x30 (min) access required when there is a 30sq.ft. area, at least 30" high (must be in accessible location, not in closet)
Ice protection	5905.2.7 .1	Ice barrier must extend from eave's edge to 24" inside the exterior wall line of building
Wind wash barrier	6106.3.3 .1	Solid barrier required from top plate to top of insulation in ventilated attics
Combustion Air	6701.1.1	Must be brought in from outside in spaces less than 50 cu. ft per 1,000 btu/h input. (Translated, a 100,000 btu appliance in a space that has an 8ft ceiling would need a minimum area of 625 sq.ft.)
Unlined chimneys	9303.4	Where a solid fuel-burning appliance is vented in an existing, unlined chimney, the chimney must be relined

GIRDER SPANS AND HEADER SPANS FOR EXTERIOR BEARING WALLS

(Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir and required number of jack studs)

Girders and Headers Supporting	Size	Ground Snow Loads						Girders and Headers Supporting	Size	Ground Snow Loads					
		50								50					
		20		28		36				20		28		36	
		Span	NJ*	Span	NJ*	Span	NJ*			Span	NJ*	Span	NJ*	Span	NJ*
Roof and Ceiling	2-2x4	3-2	1	2-9	1	2-6	1	Roof, ceiling and two center-bearing floors	2-2x4	2-6	1	2-2	1	1-11	1
	2-2x6	4-8	1	4-0	1	3-8	2		2-2x6	3-8	2	3-2	2	2-10	2
	2-2x8	5-11	2	5-2	2	4-7	2		2-2x8	4-7	2	4-0	2	3-8	2
	2-2x10	7-3	2	6-3	2	5-7	2		2-2x10	5-8	2	4-11	2	4-5	3
	2-2x12	8-5	2	7-3	2	6-6	2		2-2x12	6-6	2	5-9	3	5-2	3
	3-2x8	7-5	1	6-5	2	5-9	2		3-2x8	5-9	2	5-1	2	4-7	2
	3-2x10	9-1	2	7-10	2	7-0	2		3-2x10	7-1	2	6-2	2	5-7	2
	3-2x12	10-7	2	9-2	2	8-2	2		3-2x12	8-2	2	7-2	2	6-5	3
	4-2x8	6-1	2	5-3	2	4-8	2		4-2x8	4-9	2	4-2	2	3-9	2
	4-2x10	10-6	1	9-1	2	8-2	2		4-2x10	8-2	2	7-2	2	6-5	2
	4-2x12	12-2	2	10-7	2	9-5	2		4-2x12	9-5	2	8-3	2	7-5	2
Roof, ceiling and one center-bearing floor	2-2x4	2-9	1	2-5	1	2-2	1	Roof, ceiling and two clear span floor	2-2x4	2-0	1	1-8	1	1-5	2
	2-2x6	4-0	1	3-7	2	3-3	2		2-2x6	3-0	2	2-7	2	2-3	2
	2-2x8	5-2	2	4-6	2	4-0	2		2-2x8	3-10	2	3-4	2	2-11	3
	2-2x10	6-4	2	5-6	2	5-0	2		2-2x10	4-8	2	4-0	3	3-7	3
	2-2x12	7-4	2	6-5	2	5-9	3		2-2x12	5-5	3	4-8	3	4-2	3
	3-2x8	6-5	2	5-8	2	5-1	2		3-2x8	4-9	2	4-1	2	3-8	2
	3-2x10	7-11	2	6-11	2	6-3	2		3-2x10	5-10	2	5-0	2	4-6	3
	3-2x12	9-2	2	8-1	2	7-3	2		3-2x12	6-9	2	5-10	3	5-3	3
	4-2x8	5-3	2	4-7	2	4-2	2		4-2x8	5-6	2	4-9	2	4-3	2
	4-2x10	9-1	2	8-1	2	7-2	2		4-2x10	6-9	2	5-10	2	5-2	2
	4-2x12	10-7	2	9-3	2	8-4	2		4-2x12	7-9	2	6-9	2	6-0	3
Roof, ceiling and one clear span floor	2-2x4	2-7	1	2-3	1	2-1	1	* Number of jacks.							
	2-2x6	3-10	2	3-4	2	3-1	2								
	2-2x8	4-10	2	4-2	2	3-9	2								
	2-2x10	5-11	2	5-1	2	4-7	3								
	2-2x12	6-10	2	5-11	3	5-4	3								
	3-2x8	6-1	2	5-3	2	4-8	2								
	3-2x10	7-5	2	6-5	2	5-9	2								
	3-2x12	8-7	2	7-5	2	6-8	2								
	4-2x8	4-11	2	4-3	2	3-10	2								
	4-2x10	8-7	2	7-5	2	6-7	2								
	4-2x12	9-11	2	8-7	2	7-8	2								

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