

RESIDENTIAL BUILDING CODE REQUIREMENTS

1. Structures shall be designed and constructed to support and transfer all loads (dead, live, wind, snow and soil). When this cannot be ascertained thru Building Codes, Design Drawings are required.
2. Walls within 5' of a property line require 1hr. fire rating, walls within 3' can have no openings.
3. Flood Zones & Wetland shall be identified; proper permitting is required in these areas.
Construction within a Flood Zone must have the lowest floor 1' above the high water mark.
4. All foam/plastic including but not limited to ICF foundations, foam insulation, insulation facing and poly. shall be covered in dwellings, basements or garages by ½" gypsum or equivalent.
In crawl spaces and attics ¼" structural panel or equivalent may be used.
5. Attached garages must be separated from dwellings and attics by ½" gypsum board on the garage side and a fire rated door, 5/8" sheetrock is required on ceilings where habitable space is above the garage.
Detached garages within 3' of a dwelling must have ½" sheetrock separation.
Doors, windows or any opening between garages and bedrooms are not allowed.
6. Garage floors shall be pitched towards the main vehicle door or a floor drain.
7. All plumbing fixtures shall be connected to an approved sanitary system and water supply.
8. Bathrooms shall have an operating window or exhaust fan.
Exhaust openings cannot be within 3' of vented soffit.
9. Safety glazing is required in all doors, in windows within 24" of a door & 60" of the floor, in windows within 18" of the floor & over 9 sq. ft. and in walls & enclosures of bathtubs, hot tubs, whirlpools.
10. Basements, habitable attics and bedrooms shall have at least one emergency escape and rescue opening leading outside. If this is a window it must meet the following opening minimums: 20" width, 24" height, 5.7 sq. ft. of clear opening and a maximum sill height of 44"
11. Window openings within 24" of the floor & more than 6' above grade shall have fall protection to 24"
12. Stairways shall be a minimum 36" wide, 80" high, a landing 36"x width of stairs must be at the top and bottom of every flight. Maximum riser height is 8 1/4", minimum tread run is 9" and riser heights cannot vary more than 3/8". Winders must be a min. 6" at any point. A door cannot open over stairs.
13. All flights of stairs with 4 or more risers shall have a graspable handrail at a height of 34" to 38" off the nosing; handrails shall be continuous for the length of the flight with the ends returned to the wall.
14. Porches, decks, open sides of stairs and any floor surface more than 30" (measured 36" out from the edge) above the floor or grade below shall have a guard not less than 36" in height that will not allow passage of a 4" sphere. 36" is measured from the seat of permanent benches.
15. Guard and handrails shall withstand a 200 lb. concentrated load applied in any direction.
16. Smoke alarms are required in each bedroom, in the immediate vicinity outside each bedroom and on each additional floor including basements and habitable attics.
Carbon Monoxide Alarms are required outside all bedrooms in, new construction and remodels where a permit is required, where fuel-fired appliances or an attached garage are present.
17. Treated wood shall be used for exposed decks and porches, sills and framing members that rest on concrete, posts in contact with the ground and joists within 18"/ beams within 12" of exposed ground.
18. Fasteners (½" diameter or less) & connectors for pressure treated wood must have an approved coating.
19. Masonry chimney and fireplace clearances to combustible materials are 2" interior and 1" exterior.
Chimneys must extend 3' above where it passes thru the roof or 2' higher than anything within 10'
All single wall chimney connections shall have a minimum 12" clearance to combustibles.

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FOUNDATION

1. Footings shall bear on undisturbed soil, minimum footing depth is 42" below finished grade; minimum footing thickness is 6". Actual footing thickness & width are based on soil classification and load carried.
2. Floating slabs (600 sq. ft. max.) shall have 2pcs. ½" rebar in a thickened edge that extends 12" below grade.
3. Frost protected slabs shall be insulated, extend 12" below grade and be maintained to 64 degrees.
4. Concrete and Masonry foundation wall thickness and vertical rebar size & spacing shall be based on unbalanced fill and soil class. Treated foundations with more than 4' of unbalanced fill require Design.
5. Foundations shall be damp/water proofed, a drainage system of tile, stone covered with filter cloth and which discharges either mechanically or by gravity, shall be placed at or below the floor level.
6. Concrete floors below grade shall be placed on a minimum 4" clean gravel or stone and 6 mil poly.
7. Crawl spaces must be vented 1sq.ft. net free air per 150sq.ft. of crawl space, a vent shall be placed within 3' of each corner. Venting can be reduced to 1/1500 by placing 6mil poly on the ground.
8. Sill plate anchoring- ½" diameter anchor bolts placed a max. 6' o.c. and 12" from each plate end, bolts shall extend a min. 7" into concrete or grouted cells of masonry. Alternate anchoring may be approved.
9. Backfilling shall not take place until foundation is anchored to the floor deck or sufficiently braced.
10. Grade around foundations must fall a min. 6" within the first 10'

FLOORS/DECKS

1. Sizing of dimensional lumber joists, headers and beams must meet minimum requirements based on span, spacing and loads carried. Structural dimensional lumber shall have a grade stamp.
2. Joists must have a minimum 1½" bearing or be supported by a properly installed joist hanger –Beams or girders must have 1½" bearing on wood, 3" on concrete and cannot be supported by a ledger board.
3. Dimensional lumber joists cannot be drilled (1/3 max.) or notched (1/6 max.) in the middle 1/3 of the span.
4. I-joists & floor trusses shall be installed to manufacturers Design Drawings, a copy of design drawings shall be provided. Alterations or repairs to joists must be by Design provided by the manufacture.
5. End wall blocking/bracing may be required to transfer soil loads when deemed necessary.
6. Posts supporting beams, girders and headers shall be fastened at the top and bottom.
7. Deck ledgers shall be attached with properly sized & spaced fasteners (1/2" lags/bolts or equivalent)

WALLS

1. All exterior walls shall be supported by permanent footings.
2. Walls over 10 ft. high (12 ft. w/continuous structural sheathing) and walls with excessive openings require Design showing stud size, spacing and configuration & detailed bracing and fastening requirements.
3. Fire blocking is required in walls at floor and ceiling levels, horizontal/vertical intersections as in soffits or under stairs, around vents, ducts, pipes and chimneys.
4. A vapor retarder shall be installed on exterior walls, Class I (poly) Class II (Kraft) Class III (paint) as required.
5. An approved water resistant barrier (house wrap) shall be installed and sealed in a manner that prevents water from entering walls, including around all penetrations.

ROOF

1. Trusses shall be built and installed to manufacturers Design Drawings showing layout, bearing points, lateral bracing and other specific details, a copy of Design Drawings shall be provided.
2. Alterations or repairs to trusses must be by Design provided by the manufacturer.
3. Trusses/rafters shall be fastened to wall plate with truss ties to be part of a load path to the foundation.
4. Attics shall be vented with a minimum net free air 1 sq.ft. per 150 sq.ft. (1/300 with vapor retarder I or II)
5. 22"x30" Attic access must be provided.
6. Ice barrier shall be provided over conditioned areas extending to a point 24" beyond exterior wall line.
7. Reroofing – no more than two layers of roofing may exist on a roof.

ENERGY/INSULATION

1. New buildings and additions shall be inspected to meet energy codes. Existing/undisturbed buildings or walls involved in remodeling need not comply unless no insulation exists.
2. Prescriptive (min. R-values) or performance (overall energy efficiency) may be used for compliance.
3. R-values shall be labeled on insulation, depth markers where blown in or by certification from installer.
4. All potential air leaks must be sealed by caulk, gaskets, weather stripping or equivalent.
5. R-values and appliance efficiency ratings shall be labeled on the buildings service panel.
6. Exterior foam insulation shall be protected from damage to a min. 6" below grade.