Inspection Checklist
Residential Building Final

Topsham Code Enforcement Office

This Inspection Checklist reflects code requirements of the 2015 International Residential Code (IRC), and other codes as noted.

Please verify the following before calling for a building final inspection

Permits and Plans

- ❑ Permit and approved plans are on site and accessible to the inspector. (R105.7)
- ❑ Permit information is correct (address, permit number, description of work, etc.) (R106.1)
- ❑ All other inspections are approved. (R109)
- ❑ FEMA elevation certificate by licensed surveyor for construction in flood hazard areas. (R109.1.6.1)

Exterior

- ❑ House numbers plainly visible legible from the street or road fronting the property minimum 4" and of contrasting color. (R319)
- ❑ All exterior windows, penetrations and openings caulked. (R703.1.1)
- ❑ Chimney terminations are 2' above any roof/structure within 10' and not less than 3' above the highest point where the chimney passes through the roof. (R1003.9)
- ❑ Spark arresters installed on top of chimney. (R1003.9.2)
- ❑ 6" distance from soil to wood siding/trim. (R317.1, #5)
- ❑ The grade at the foundation falls away from the building a minimum of 6" within the first 10'. Minimum slope 5% where less than 6" fall in 10'. Swales (if using) minimum 2% slope. (R401.3 & exception)
- ❑ Carports not open on at least two sides will be inspected as garages and all fire separation requirements will apply. (R309.2)

Decks, stairs and walkways

- ❑ See Tip Sheets 1, 2, 3 & 5 for details.
- ❑ Verify that deck placement, setback, size and materials are per approved plans.
- ❑ Deck is positively attached and supports both lateral and live loads (40lb/sq.ft. minimum) R301.5, R502.2.
- ❑ All deck material treated or naturally resistant to decay. Cuts, notches, and holes are treated with preservative. (R317.1, R317.1.1, R317.1.5 & R317.2)

GENERAL INFORMATION:

- This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions.

- ❑ Fasteners and hardware for pressure preservative and fire-retardant-treated wood shall be of hot-dipped galvanized steel, stainless steel, silicon bronze or copper. (R317.3, R317.3.1 and manufacturer's requirements)
- ❑ Joists can be untreated if approved weatherproof decking membrane is used. Note: soffits allowed when ventilated.
- ❑ Ledger for decks bolted/lagged to structure in accordance with table 507.2.1 or per approved plan. (R507.2) See also Construction Tip Sheet 5.
- ❑ Deck lateral connections require a minimum (2) 1,500 lb. hold-down tension devices (figureR507.2.3(1)) or a minimum (4) 750lb hold-down tension devices (figure R507.2.3(2)). (R507.2.3)
- ❑ Cantilevers blocked at bearing line if >12". (Table R502.3.3(2), note 'e')
- ❑ Bottom of footings are minimum 48" below grade for freeze protection. (Table R301.2.(1) – local jurisdiction, R403.1.4)
- ❑ Where deck is >30" vertical above the grade plane, within 3' horizontal, a guard is installed. (R312.1.1)
- ❑ 6'8" minimum headroom at stairways measured vertically from the nose of the treads, landings or platforms. (R311.7.2)
- ❑ All stairs are provided with illumination, and light switch at each floor level of 6 or more risers. Exterior stairway lighting is to be controlled from within the building. (R303.7 and R303.8)
- ❑ Stair nosing ¾" – 1 ¼" required when solid risers are installed except when the tread depth is 11" minimum. (R311.7.5.3)
- ❑ Open risers don't allow passage of 4" sphere, except stairs with a rise of 30" or less. (R311.7.5.1)
- ❑ Radius of curvature at the leading edge of the tread is not over 9/16". (R311.7.5.3)
- ❑ The greatest nosing projection doesn't exceed the smallest by >3/8". (R311.7.5.3)
- ❑ Stair riser maximum 7 3/4", treads minimum 10". (R311.7.5.1)
- ❑ Stair riser/tread maximum dimension doesn't exceed smallest by >3/8". (R311.7.5.1)
- ❑ Guards don't allow passage of 4" sphere. (R312.1.3)
- ❑ Guards installed at the sides of stairs don't allow the passage of 4 3/8" sphere. (R312.1.3 Exception 2)
- ❑ Triangle formed by riser, tread and bottom element of guardrail doesn't allow passage of 6" sphere. (R312.1.3 Exception1)
- ❑ Guards adjacent to floor surfaces over 30" from adjacent floor or grade are a minimum 36" height to the top of the guard. (R312.1.2)
- ❑ Open sides of stairs with a total rise of 30" above the floor or grade below have guards minimum 34" in height when measured vertically from the stair nosing to the top of the guard. (R312.1.2 exceptions 1 & 2)
- ❑ Handrails and guards capable of withstanding 200 lbs. applied in any direction at any point on the rail. (Table R301.5)
- ❑ Handrail at stairs with 4 or more risers. (R311.7.8)
- ❑ Handrail minimum 34" to maximum 38" above nose of tread to top of handrail. (R311.7.8.1)
- ❑ Type I handrails with circular cross sections 1 1/4" - 2" diameter. (R311.7.8.3) See Tip Sheet 2.
- ❑ Type I handrails with noncircular cross sections have a perimeter dimension of 4" – 6 ¼" with a maximum cross section of 2 ¼". (R311.7.8.3) See Tip Sheet 2.
- ❑ Type II handrails with perimeters greater than 6 ¼" require a graspable finger recess area on both sides of the profile. The minimum & maximum width above the recess is 1 ¼" – 2 ¾". (See section for details.) (R311.7.8.3)
- ❑ Handrail returns to wall, maximum 4 1/2" off wall with minimum 1 1/2" clear space from inside of rail to wall. (R311.7.1, R311.7.8.2)
- ❑ Exterior doors have landings, minimum width of door x 36". The floor or landing at the required exit door shall not be more than 7.5" lower than the top of the threshold provided the door swings in. Floors or landing at doors other than required exit door may step down 7.5" regardless of door swing. (R311.3)

GENERAL INFORMATION:

- This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions.

Where a stairway of two of fewer risers is located on the exterior side of a door, other than the required exit door, a landing is not required for the exterior side of the door. (R311.3.2 EX)

Interior

- ❑ Single family garages separated from the residence and its attic area by not less than ½" gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8" type x gypsum board or equivalent. Structures supporting a floor/ceiling assembly are protected by minimum ½" gypsum board or equal. (Table R302.6)
- ❑ A woodstove, pellet stove, or any solid fuel burning appliance may not be installed in a garage. (NFPA 211)
- ❑ Ducts in garages which penetrate the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage sheet metal and can have no openings into the garage. (R302.5.2)
- ❑ Other penetrations through garage walls and ceilings are filled with approved material to resist free passage of flame and smoke. (R302.5.3, R302.11 #4)
- ❑ 1 3/8" solid wood door or 1 3/8" solid or honeycomb steel door, or 20-minute fire-rated door, equipped with a self-closing device between house and garage. (R302.5.1)

Attics

- ❑ Attic accesses required to areas exceeding 30 square feet and which have a vertical height of 30" or greater. (R807.1)
- ❑ Accesses located in hallways or other readily accessible location. (R807.1)
- ❑ Attic access unobstructed 22"x30" or large enough to remove the largest piece of mechanical equipment intact. (R302.5.1, R807.1, M1305.1.3)
- ❑ Proper insulation and thickness is installed. (IECC 2009)
- ❑ Blow-in insulation has not filled/blocked baffles. Maintain 1" clearance between roof sheeting and insulation. (R806.3)

Crawl Space

- ❑ Floor crawl access 18" x 24". (R408.4)
- ❑ Openings through a perimeter wall to crawl 16" x 24". (R408.4)
- ❑ Venting at crawl at minimum 1sq.ft. / 150sq.ft, if ground is covered by a Class 1 vapor retarder minimum net area may be 1sq.ft/1500sq.ft. (R408.1)
- ❑ Unvented Crawl space is permitted if meeting (R408.3).

GENERAL INFORMATION:

- This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions.

- ❑ R-30 insulation is installed vapor barrier up against bottom of floor and secured in place. (IECC 2009)
- ❑ Pressure treated wood posting installed at basements or cellars or supported by piers or metal pedestals projecting 1" above floor or finished grade and 6" above exposed earth and separated by an approved impervious moisture barrier. (R317.1.4)
- ❑ Pressure treated wood posting installed in crawlspaces or unexcavated areas, supported by a concrete pier or metal pedestal 8" above exposed earth and separated by an approved impervious moisture barrier. (R317.1.4)
- ❑ Remove all debris from the crawl space. (R408.5)
- ❑ Floors constructed of lumber less than 2"x10" dimensional lumber to be fire protected on the underside where a crawl space is for storage or houses fuel burning equipment. (R302.13)
- ❑ Where required, flood resistant construction in flood hazard areas (treated/water resistant materials, flood vents, etc.) R322.

Stairs and Handrails

- ❑ For differing stair types and requirements see R311.7, R311.7.9 & Construction Tip Sheet 1.
- ❑ Stair riser maximum 7 3/4", treads minimum 10". NOTE: THESE ARE THE ROUGH CUT DIMENSIONS (R311.7.4)
- ❑ Stair riser/tread maximum dimension doesn't exceed smallest by >3/8". (R311.7.4)
- ❑ 6'8" minimum headroom at stairways measured vertically from the nose of the treads, landings or platforms. (R311.7.2)
- ❑ All stairs are provided with illumination. A light switch is required at each floor level of 6 or more risers. Exterior stairway lighting is to be controlled from within the building. (R303.7)
- ❑ Stair nosing ¾" – 1 ¼" required when solid risers are installed except when the tread depth is 11" minimum. (R311.7.5.3)
- ❑ Open risers don't allow passage of 4" sphere, except stairs with a rise of 30" or less. (R311.7.5.1)
- ❑ Radius of curvature at the leading edge of the tread is not over 9/16". (R311.7.5.3)
- ❑ The greatest nosing projection doesn't exceed the smallest by >3/8". (R311.7.5.3)
- ❑ Stair riser maximum 7 3/4", treads minimum 10". (R311.7.5.1)
- ❑ Stair riser/tread maximum dimension doesn't exceed smallest by >3/8". (R311.7.5.1)
- ❑ Guards don't allow passage of 4" sphere. (R312.1.3)
- ❑ Guards installed at the sides of stairs don't allow the passage of 4 3/8" sphere. (R312.1.3 Exception 2)
- ❑ Triangle formed by riser, tread and bottom element of guardrail doesn't allow passage of 6" sphere. (R312.1.3 Exception1)
- ❑ Guards adjacent to floor surfaces over 30" from adjacent floor or grade are a minimum 36" height to the top of the guard. (R312.1.2)
- ❑ Open sides of stairs with a total rise of 30" above the floor or grade below have guards minimum 34" in height when measured vertically from the stair nosing to the top of the guard. (R312.1.2 exceptions 1 & 2)
- ❑ Handrails and guards capable of withstanding 200 lbs. applied in any direction at any point on the rail. (Table R301.5)
- ❑ Handrail at stairs with 4 or more risers. (R311.7.8)
- ❑ Handrail minimum 34" to maximum 38" above nose of tread to top of handrail. (R311.7.8.1)
- ❑ Type I handrails with circular cross sections 1 1/4" - 2" diameter. (R311.7.8.3) See Tip Sheet 2.
- ❑ Type I handrails with noncircular cross sections have a perimeter dimension of 4" – 6 ¼" with a maximum cross section of 2 ¼". (R311.7.8.3) See Tip Sheet 2.

GENERAL INFORMATION:

- This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions.

- ❑ Type II handrails with perimeters greater than 6 ¼" require a graspable finger recess area on both sides of the profile. The minimum & maximum width above the recess is 1 ¼" – 2 ¾".(R311.7.8.3)
- ❑ Handrail returns to wall, maximum 4 1/2" off wall with minimum 1 1/2" clear space from inside of rail to wall. (R311.7.1, R311.7.8.2)

Smoke Alarms / Carbon Monoxide Detectors

- ❑ Smoke alarms required when interior alterations, repairs or additions requiring a building permit occur. (R314.2.2)
- ❑ Alarms are interconnected and hard wired unless the area of work does not result in the removal of interior wall or ceiling finishes exposing the structure unless there is an attic, crawl space, or basement available which could provide access for the hard wiring. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. (R314.4)
- ❑ Smoke alarms at every floor level, in each bedroom and in hallways serving bedrooms; bedrooms are identified on the permit building plans. (R314.3, NFPA 72)
- ❑ Smoke alarms shall be listed and installed in accordance with the provisions of this code and the household fire warning equipment provisions of NFPA 72. (R314.1)
- ❑ Carbon Monoxide detectors shall be installed for New Construction, Alterations, Repairs. (R315.2, R315.2.1, 315.2.2)
- ❑ Carbon Monoxide detectors shall be located outside/in the immediate vicinity of bedrooms. If the bedroom or attached bathroom contains a fuel burning appliance, a detector must also be installed in the bedroom. (R315.3)

Windows and Glazing

- ❑ Bedroom Emergency Escape and Rescue window sill not more than 44" from floor to bottom of window opening. Minimum 5.7sq.ft. clear opening, 20" minimum width, and 24" minimum height. (R310.2.1)
- ❑ Emergency escape and rescue openings must be operational from the inside without the use of keys, tools, or special knowledge. (R310.1.1)
- ❑ Emergency escape and rescue openings shall be permitted to be installed under decks and porches provided that the location of the deck allows the emergency escape and rescue openings to be fully opened and provides a path not less than 36 inches (914 mm) in height to a yard or court. (R310.2.4)
- ❑ Replacement windows installed in buildings meeting the scope of this code shall be exempt from the maximum sill height requirements of Sections R310.1 and Sections R310.2.1 and R310.2.2, provided the replacement window meets the following conditions: 1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window is of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window. 2. The replacement window is not part of a change of occupancy.
- ❑ Safety glazing installed in hazardous locations is marked with type and thickness. Mark is acid etched, sandblasted, ceramic-fired, embossed or made by other permanent means. (R308.1)

- ❑ Safety glazing is installed at hazardous locations (R308.4)
    1. Glazing in swinging doors except jalousies.
    2. Glazing in fixed and sliding panels of sliding door assemblies and panels in sliding and bifold closet door assemblies.
    3. Glazing in storm doors.
    4. Glazing in all unframed swinging doors.
    5. Glazing in doors and enclosures for hot tubs, whirlpools, saunas, steam rooms, bathtubs and showers. Glazing in any portion of a building wall enclosing these compartments where the bottom exposed edge of the glazing is less then 60" above any standing or walking surface.
    6. Glazing in fixed or operable panels adjacent to a door where the nearest vertical edge is within a 24" arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60" above the walking surface. Except where there is an intervening wall or partition between door and glazing or where the door accesses a closet 3' or less in depth.
    7. Glazing in a individual fixed or operable panel, when <u>all</u> of the following apply:
        7.1. Expose area of an individual pane greater then 9 sq.ft.
        7.2. Bottom edge less than 18" above the floor.
        7.3. Top edge greater than 36" above the floor.
        7.4. One or more walking surfaces within 36" horizontally of the glazing.
        Exception: Where a protective 1 ½" wide bar is installed on the accessible side of the glazing 34"- 38" above the floor and capable of withstanding a load of 50lbs per linear foot.
    8. Glazing in railings regardless of area or height above a walking surface. Includes structural baluster panels and nonstructural in-fill panels.
    9. Glazing in walls and fences enclosing indoor and outdoor swimming pools, hot tubs and spas where the bottom edge of the glazing is less than 60" above a walking surface and within 60" horizontally of the water's edge.
    10. Glazing adjacent to stairways, landings and ramps within 36" horizontally of a walking surface when the exposed surface of the glass is less than 36" above the plane of the adjacent walking surface. Except where a handrail or guard is installed per IBC Sections 1013 & 1607.7.
    11. Glazing adjacent to stairways within a 60" arc horizontally of the bottom tread of a stairway less than 180 degrees from the bottom tread nosing, when the exposed surface of the glass is less than 36" above the nose of the tread. Exception: When the side of stair, landing or ramp has a guard or handrail with balusters or in-fill panels and the plane of the glass is more than 18" from the railing. (R308.4.7) See also Construction Tip Sheet 19

GENERAL INFORMATION:

- This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions.