

RESIDENTIAL FRAMING INSPECTION CHECKLIST

Building & Fire Safety Division - Yakima County Public Services

128 N 2nd Street, 4th Floor, Yakima, WA 98901

Office (509) 574-2300 ~ Fax (509) 574-2301

Inspection Request Line (509) 574-2370

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

References are to the *International Residential Code (IRC), and the Washington State Energy Code (WSEC)

*Code section reference subject to change without notice.

Please verify the following before calling for a framing inspection.

Permits and Plans

- Job address is posted in a visible location. (R321.1)
- Permit and approved plans and specifications for any engineered systems are on site and accessible to the inspector. (R106.3.1, R105.7 or local ordinance).
- Permit information is correct (address, permit number, description of work, etc.)
- Plans have been reviewed for completion of framing and framing details. Note any details or references to structural information.
- Required electrical, mechanical, fire sprinkler and plumbing rough-in inspections and prior building inspections are approved. (R109.4 or local ordinance)

General

- The roof is complete and exterior moisture barriers are installed. (R109.4 & R703.1)
- There is no significant moisture remaining in the wood framing.
- The penetrations at top and bottom plates, fire blocks, soffits, ceiling lines, etc. are sealed. (R602.8)
- The fire blocking is complete. (Example: soffits, chases, dropped ceilings and stairs where the underside is unfinished, etc.) See code section for specific locations and fire blocking materials. Unfaced fiberglass insulation used as fireblocking must fill the entire cross section of the wall cavity to a minimum height of 16" vertically. Insulation is packed tightly around obstructions such as piping, conduits, etc. (Securely retain mineral wool or glass fiber used for fire blocking.) (R602.8)
- The installation of plumbing & mechanical rough-in work has not damaged the joists. See structural section regarding notching and boring. See Construction also Tip Sheet 11. (R502.8 & R602.6)
- Plumbing openings to crawl spaces protected by secured metal screens or collars with no openings greater than 1/2". (UPC 313.12).
- The nailing is per code and per plan. Check the shearwall schedule for specified connections at walls, plates, joists, etc. (Table R602.3(1))
- Smoke alarm wiring is installed at all required locations. Smoke alarms are required when interior alterations, repairs or additions requiring a building permit are being done. Required locations are, centrally located in halls outside of sleeping rooms, in each sleeping room at each floor level and interconnected. See the code sections for specific requirements. See also Tip Sheet 4. (R313)
- Tempered glazing is installed at all the required areas, such as tubs, showers, stairs, walkways, doors, and adjacent areas. NOTE: It is a good idea to check this now, since glazing can be a long lead-time item and can be rechecked at later inspections. See exceptions and Construction Tip Sheet 19. (R308.4)
- The minimum ceiling height is 7'0". (R305.1)
- Beams and girders spaced not less than 4' on center may project not more than 6" below the required ceiling height. (R305.1)

- Provide attic access to areas exceeding 30 sq.ft. and vertical height of 30" or greater. The rough framed opening is a minimum 22" x 30" with a minimum 30" of unobstructed headroom above the access. See also the Plumbing Rough In and the Mechanical Rough In Checklists for additional requirements. (R807)
- Sill heights at emergency escape and rescue openings are framed to allow 44" maximum distance from finished floor to finished window sill. See Construction Tip Sheet 10. (R310)
- Operable windows with openings more than 6' above grade or surface below, where the lowest part of the clear opening is less than 24" above interior finished floor are fixed or have openings through which a 4" sphere cannot pass. See section for exceptions. (R613.2)

Stairs (See Construction Tip Sheet 1)

- Floor or 36" deep landing at top and bottom of stairways. Exception: Not required at the top of an interior flight of stairs, as long as the door does not swing over stairs. (R311.5.4)
- Stairway headroom clearance is minimum 6' 8" measured vertically from the plane of the stairway tread nosing to the soffit or other construction above at all points. (R311.5.2)
- 6'8" minimum headroom at stairways measured vertically from the nose of the treads, landings or platforms. (R311.5.2)
- All stairs are provided with illumination. (R311.5.7 & R303.6)
- Stair nosing $\frac{3}{4}$ " – $1\frac{1}{4}$ " required when solid risers are installed except when the tread depth is 11" minimum. (R311.5.3.3)
- Open risers don't allow passage of 4" sphere, except stairs with a rise of 30" or less. (R311.5.3.3)
- Radius of curvature at the leading edge of the tread is not over 9/16". (R311.5.3.3)
- The greatest nosing projection doesn't exceed the smallest by $>3/8"$. (R311.5.3.3)
- Stair riser maximum 7 3/4", treads minimum 10" when measured horizontally from the vertical plane of adjacent stair nosing. (R311.5.3)
- Stair riser/tread maximum dimension doesn't exceed smallest by $>3/8"$. (R311.5.3)

Hold-downs and Hardware

- The required special inspections have been completed and reports are available to inspector (epoxy or wedge anchor bolting into concrete, structural welding, moment frames, etc.). (R109.1.5 or local ordinance)
- The proper type and size of fasteners are used for each application. (Table R602.3(1))
- The mechanical connectors, straps, hold-downs, clips, hangers, are installed per plan and per manufacturer's specifications.
- Fasteners and hardware for pressure preservative and fire-retardant-treated wood shall be of hot-dipped galvanized steel, stainless steel, silicon bronze or copper. (R319.3 and manufacturer's requirements)
- Joisting at decks can be untreated if approved weatherproof decking membrane is used. Note: soffits allowed when ventilated. (R319.1.2)
- Full height studs are installed at all hold-downs, strapping, etc. Nailing into all studs at hold-downs and straps are complete. (See manufacturer's specifications and architectural details.)
- Anchor bolting is installed per shearwall schedule when specified and at a minimum of 2 per plate, maximum 6' o.c., maximum 12" from plate ends and not less than 7 bolt diameters from end of each piece. Properly sized nut and washer (minimum 3"x 3" x 1/4" unless otherwise engineered) tightened on each bolt. (R403.1.6)

Walls

- The sheathing panel end joints occur over framing. (R602.10.7)
- The plans have been checked for any specified blocking or nailing at floor, wall and roof connections.
- The fastener types and sizes are per approved plans and schedules.
- The lumber grades are the same as shown on plans.

- Top plate splices < 24", or plates over-notched or over-bored, are strapped with a minimum 16 gage x 1.5 inch wide metal tie with 8-16d nails per side. Exception: When the entire side of the wall with the notch or cut is covered by wood structural panel sheathing. (R602.3.2 & R602.6.1)
- All point loads continue to the foundation.
- Double & triple trimmers installed. Most header openings require minimum of (2) trimmers. (Table R502.5(1))
- The wall studs are sized per plan & per code. (Third story conditions, short walls, bearing for trusses, etc.) (Table R602.3(5))
- Studs in exterior or bearing walls are not cut or notched more than 25% of the width. (R602.6 & Construction Tip Sheet 11)
- Studs in nonbearing partitions are not cut or notched more than 40% of the width. (R602.6 & Construction Tip Sheet 11)
- There are no holes with a diameter greater than 40% of the stud width. Holes up to 60% of the stud width may be bored in nonbearing studs and through two bearing studs when the studs are doubled. (R602.6 & Construction Tip Sheet 11)
- At least one window opening in bedrooms and in basements with habitable space are framed to allow proper finished sill height of 44". (R310 & Construction Tip Sheet 10)
- See the Shearwall Inspection Checklist for further information.

Floor Joists

- Bearing at floor joists to be 1½" at wood or steel bearing and minimum 3" at masonry or concrete. (R502.6)
- Notches on the ends of joists not to exceed ¼ the joist depth. (R502.8.1)
- Notches in solid lumber joists do not exceed 1/6 of the depth, not longer than 1/3 of the depth of the member and are not located in the middle 1/3 of the span. (R502.8.1)
- Holes are not within 2" of the top or bottom of the joist or any other hole or notch and the diameter is not greater than 1/3 the depth. For I-joists, refer to manufacturer's specifications. (R502.8.1)
- Joisting lapped at least 3" where framed from opposite sides of bearing support and nailed together with three 10d face nails or strapped together in an approved manner. (R502.6.1)
- Framed openings: (R502.10)
 - Trimmer and header joists doubled or equivalent dimension when header span is greater than 4'.
 - When the header span is greater than 6', the header joists to be supported by framing anchors or joist hangers, bear on beam, partition or wall.
 - Tail joists greater than 12', to be supported at header by framing anchors or 2x2 ledgers.
- I-joists installed per manufacturer's specifications and installation guidelines.
- Refer to manufacturer's installation instructions for notching or boring restrictions.
- Floor crawl access 18" x 24". See also the Plumbing Rough In and the Mechanical Rough In Checklists for additional requirements for access within the crawl space. (R408.4)

Roof

- The ridges, hips, and valleys have been designed as beams for roof slopes < 3 ft. in 12 ft. (R802.3)
- The rafters are framed opposite each other at the ridges. (R802.3)
- The minimum thickness of the ridge is 1" nominal width and not less in depth than the cut at rafter end. (R802.3)
- Notches on the ends of rafters don't exceed ¼ the nominal joist depth. (R802.7.1)
- Notches in the top or bottom of rafters don't exceed 1/6 of the nominal depth and are not located in the middle 1/3 of the span. (R802.7.1)

NOTE: Notching that is not longer than 1/3 of the nominal depth is permitted in the top of the rafter, if not located in the middle third of the rafter.
- Holes are not within 2" of the top or bottom of the rafter and the diameter is not greater than 1/3 the nominal depth. For I-joists, refer to manufacturer's specifications. (R802.7.1)
- Rafter ties are completed if required. (R802.3.1)

- Purlins and struts are completed if required. (R802.5.1)
- The valley and hip rafters are not less than 2" nominal width and not less in depth than cut end of rafters. (R802.3)
- Attics with storage of 24" x 42" or > must be designed for 20 lbs live load. Attics with fixed stair must be designed for 30 lbs live load. (Table R301.5 (b)(g)(h))

Trusses (R802.10 and ANSI/TPI 1-2000)

- The truss specifications are on site. (R802.10.1)
- The truss specifications have been stamped and signed by an engineer. (R106.1)
- The trusses are stamped by the manufacturer and show the appropriate information.(R802.10)
- The truss configuration meets the design drawings. (R802.10.1 #1)
- The roofing material has not changed since the original design. If so, a revision may be required.(R301.1)
- Trusses have bearing as noted on truss specifications. (R802.10.1 #3)
- The lumber grade marks and sizes match the design specifications. (R802.10.1 #8)
- Required hangers installed per specifications. (R802.10)
- The connection plate sizes, gauges and locations are per specifications. (R802.10.1 #9, 9.1, 9.2, 9.3)
- The truss bracing has been completed per specifications. (R106.1,R802.10.3)
- Posting is installed under all girder-bearing points. (R802.10.1 #4.5)
- Point loads are completed to the foundation. (R301.1)
- Ganged trusses nailed off per manufacturer's specifications. (R802.10.1 #9.2)