Blooming Grove Township

Building Inspection Checklists

Blooming Grove Township
Inspection Checklists

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FOOTING INSPECTION CHECKLIST

1. **Inspect Footing Environment (R401.4, R401.5, Table R401.4.1)**

   _____ A. Determine if the soil in the area of the footings is undisturbed (NOT Overdug and filled.)

   _____ B. Verify that the soil in the area of the footings is consistent (NO soft spots, Color changes, exposed strata).

   _____ C. Check the footing area for standing water.

   _____ D. Check for debris within the footing area.

2. **Inspect Minimum Footing Width and Thickness (R403, Fig. R403.1(1) Tab. R402.2, Tab. R403.1)**

   _____ A. Measure and determine the actual footing width and thickness

   _____ B. Compare actual dimensions with those on approved drawings.

   _____ C. Using Table R403.1 verify that the actual footing width is in compliance with the code.

   _____ D. Determine if the actual depth of the footing is equal to or greater than 6 in..

3. **Inspect Footing Placement (R403, R403.1.1, Fig. R403.1(1))**

   _____ A. Determine if the bottom of all footings extends at least 12 in. below the finished grade.

   _____ B. Determine if the bottom of the footings is below the frost line; unless otherwise protected.

4. **Inspect Footing and Continuity, surface, and step. (R403.1.5, Fig. R403.1(1))**

   _____ A. Determine if footings are continuous (NO gaps).

   _____ B. Determine if the top surface of the footing is level and that the bottom surface does not exceed a 1:10 slope.

   _____ C. If the bottom surface of the footing exceeds a 1:10 slope then verify that the footing is stepped correctly.

FOUNDATION INSPECTION CHECKLIST

1. Inspect Foundation Construction (R404.1 Fig. R403.1(1))

Determine if the:

_____ A. Foundation walls are centered on footings.

_____ B. Footing projection is a minimum of 2 in. on each side.

_____ C. Footing projection does NOT exceed the footing thickness.

Determine that, if anchor bolts are used, they are:

_____ D. Set at least 7 in. into the concrete or masonry wall.

_____ E. Not more than 6 feet on center.

_____ F. Not more than 12 in. from the end of each plate.

_____ G. At least ½ in. in diameter.

_____ H. Attached to plate with washer and nut tightened down to plate.

If other foundation anchorage is used, determine if:

_____ I. It is an approved type.

_____ J. It is installed per manufacturer's installation manual.

_____ K. Confirm that concrete meets or exceeds the strength requirements in Table R402.2

2. Inspect minimum foundation wall thickness and maximum unbalanced backfill height (R404.1.1)

_____ A. Measure the foundation wall thickness.

_____ B. Determine the height of unbalanced fill (distance from the floor to the finished grade).

_____ C. Identify the type of construction material and type of lateral support.

_____ D. Identify and/or determine the soil classification

_____ E. If walls are subject to hydrostatic pressure from groundwater or support more than 4 feet of unbalanced backfill and do not have permanent lateral support at the top and bottom, then design is required in accordance with engineering practice.

_____ F. If foundation walls are plain concrete or masonry then confirm minimum wall thickness and maximum height of unbalanced backfill with Table R404.1.1(1).

_____ G. If foundation walls are reinforced concrete or masonry, confirm that minimum wall thickness, maximum height of unbalanced backfill, reinforcement and engineered design comply with Tab. R404.1.1(2), R404.1.1(3) or R404.1.1(4) or the approved design.

FOUNDATION INSPECTION CHECKLIST CONTINUED

3. Concrete and Masonry Foundation Dampproofing and Waterproofing (R406.1, R406.2)

_____ A. If masonry foundation walls enclose habitable or usable space, then verify that they are covered with 3/8 inch thick parging of Portland cement from footing to finished grade.

_____ B. If masonry or concrete foundation walls enclose habitable or usable space, then verify that dampproofing of approved bituminous material is applied from footing to finished grade over concrete or parged masonry walls.

_____ C. If a high water table or other severe soil-water condition exists, then verify that approved waterproofing membrane was applied from the footing to the finished grade over concrete or parged masonry foundation walls. Membrane joints must be lapped and sealed.

4. Pier inspection

_____ A. Check to see that a footer, minimum 2'x2'x8", is located at the bottom of the pier.

_____ B. Check to see that the bottom of the footer is minimum 4' below grade.

_____ C. If the required 4' frost protection cannot be achieved, check to see that the pier is pinned to ledge.

BACKFILL AND DRAIN INSPECTION CHECKLIST

1. Foundation Drainage (Sect. R405.1)

_____ A. Determine if drain tiles or pipe are installed at or below the area to be protected.

_____ B. Determine if drain tiles or pipe discharge into an approved drainage system.

_____ C. Determine if drain tiles or pipe are installed on at least 2 in. of gravel that is larger than pipe perforations or tile joints.

_____ D. Determine if drain tiles or pipe are covered by at least 6 in. of gravel and extends 12 in. beyond edge of footing.

_____ E. If drain tile has open joints, verify that joints are covered with strips of building paper.

2. Backfill (Sect. R401.3, R404.1.6, R405.1)

_____ A. Determine if gravel is covered by approved filter membrane.

_____ B. Determine if backfill height is 4 ft. minimum.

_____ C. Determine if foundation extends a minimum of 6 in. above finished grade.

_____ D. Determine if grade falls a minimum of 6 in. within the first 10 ft.

CONCRETE SLAB-0N-GROUND INSPECTION CHECKLIST

1. Inspect subgrade vapor retarder (Sec.R506.2, R506.2.1, R506.2.2, R506.2.3)

_____ A. Determine if vegetation, topsoil and foreign material have been removed from within the foundation walls where the slab is to be placed.

_____ B. If areas have been filled, then verify that the fill is free of vegetation, foreign material and compacted.

_____ C. If the fill has been added, then verify that (except where approved) the fill depth does not exceed 24 in. for sand or gravel or 8 in. for earth.

_____ D. If the slab is below grade, then determine if the base material is placed on prepared subgrade.

_____ E. Determine if the required base material is 4 in. thick and consists of clean, graded sand; gravel; crushed stone or crushed slag. Base material must pass through a 2 in. sieve.

_____ F. Determine if a vapor retarder is provided except for slabs located in a detached garage, utility building, unheated accessory structure, driveway/walk/patio or other flatwork where it is not likely to be enclosed and heated later, or where vapor retarder omission is approved by the code enforcement official based on local conditions.

_____ G. If a vapor retarder is required, then determine if it is an approved vapor retarder with joints lapped not Less than 6 in. and placed at the bottom of the slab.

2. Inspect Slab Construction (Tab. R402.2, Fig. R403.1(1), R506)

_____ A. Determine if the slab is a minimum of 3 1/2 in. thick.

_____ B. Determine if the concrete's compressive strength at 28 days is at least 2,500 psi, unless weather exposure set by Tab. R402.2 requires greater compressive strength. (3,500 for Garage).

_____ C. Determine if the concrete's compressive strength at 28 days is at least 3,500 psi for Porches, Carport Slabs and steps exposed to the weather, and Garage floor slabs as required by Tab. R402.2.

DECAY AND TERMITE PROTECTION INSPECTION CHECKLIST

1. Inspect for Decay Protection (R319, R320)

If an installation and area are subject to decay damage, then determine if either the clearances of the following wood members meet or exceed the minimums given below or the members are constructed of naturally durable or pressure preservatively treated wood [see Tab. R301.2(1)]

_____ A. Joists less than 18 in. from exposed ground.

_____ B. Floors less than 18 in. from exposed ground.

_____ C. Girders less than 12 in. from exposed ground.

_____ D. Sills or plates on exterior masonry or concrete walls and are less than 8 in. from exposed ground.

_____ E. Sills and sleepers on concrete/masonry slabs that is in direct contact with the ground.

_____ F. Girders entering exterior masonry or concrete walls with less than a 1/2 in. clearance on tops, sides or ends.

_____ G. Exterior siding, sheathing and wall framing less than 6 in. from exposed ground.

_____ H. Structural members which support moisture-permeable floors/roofs exposed to the weather and which are not separated from the floor/roof by an impervious moisture barrier.

_____ I. Furring and other wood elements attached to masonry or concrete walls below grade, except when an approved vapor retarder is applied to the interior of the exterior wall.

_____ J. Members supporting permanent structures intended for human occupancy which are in direct ground contact unless entirely below groundwater level or continuously submerged in fresh water.

_____ K. Posts, poles and columns supporting permanent structures intended for human occupancy which are embedded in concrete in direct contact with the ground or embedded in concrete exposed to the weather.

_____ L. If an installation and area are subject to decay, then determine if the wood members are designated for ground contact use. Check for pressure preservatively treated or naturally durable wood.

_____ M. If local experience has demonstrated specific types of wood supports require pressure preservatively treated or naturally durable species are to be used to protect them from water deterioration then determine if these supports have the required protection against decay.

DECAY AND TERMITE PROTECTION INSPECTION LIST CONTINUED

2. Inspect for Termite Protection [R324, Fig. R301.2 (6)]

_____ A. If an area is subject to termite damage as established by Tab. R301.2(1), then methods of protection shall be taken. These methods must be approved by the code official. Determine if the area requires termite protection methods.

Refer to Tab. R301.2(1)
Check the Termite Infestation Probability Map [Fig. R301.2(6)]

_____ B. Determine the type and/or combination of termite protection used:

____ Chemical soil treatment.

____ Pressure preservative treated wood.

____ Naturally termite-resistant wood.

____ Installation of physical barriers.

____ If physical barriers are used, is it possible to inspect all edges and joints of the Barrier for shelter tubes?

FLOOR AND CEILING FRAMING INSPECTION CHECKLIST

1. Inspect allowable spans and materials (R502.1,-R502.3, R802.1, R802.2, R802.4)

_____ A. Locate the grade stamp on the joist to determine grade, species and moisture content.

_____ B. Measure and determine size, clear span and spacing of the joists.

_____ C. Compare findings with the design specifications/drawings. Note any discrepancies.

_____ D. Based on tables R502.3.1(1) or R502.3.1(2) determine the allowable span for the required live and dead load and verify that the actual joist is equal to or greater than the specified joist.

_____ E. Locate the grade stamp on the girder to determine grade, species and moisture content.

_____ F. Measure and determine size, clear span and spacing of girders.

_____ G. Compare findings with the design specifications/drawings. Note any discrepancies.

_____ H. Based on tables R502.5(1) or R502.5(2) determine the allowable span for the required live and dead load and verify that the actual girder is equal to or greater than the specified girder.

2. Inspect Joists, Beams, and Girder Bearing (R502.6, R802.6)

_____ A. Determine if the length of the bearing point is at least 1 ½ in. if the supporting element is wood or metal.

_____ B. Determine if the length of the bearing point is at least 3 in. if the supporting element is masonry.

_____ C. Determine if the joist is nailed to an adjacent stud and supported by a 1 x 4 let-in ribbon strip (in balloon framing only).

_____ D. Determine if there is at least a 3-in. overlap or the opposing joists are tied together in an approved manner when butt joined, whenever joists are framed from opposite sides over a beam or girder.

_____ E. Determine if the joists are supported by an approved and properly installed joists hanger or ledger strips at least 2 in. by 2 in., where joists are framed into the side of a wood beam or girder.

FLOOR AND CEILING FRAMING INSPECTION LIST CONTINUED

3. Inspect Floor Framing Construction [R407, R502.9, R802.3, Tab. R602.3(1)]

_____ A. Determine if the joists are toe nailed to the sills or girders with at least 3-8d nails.

_____ B. Determine if the sole plates are face nailed to the joists or blocking with a 16d nail every 16 inches on center.

_____ C. Determine if ceiling joists are toe nailed to the plate with 3-8d nails.

_____ D. If ceiling joists are used to resist rafter thrust, then determine if they face nailed together with 3-10d nails at laps over partitions (minimum lap 3 in.).

_____ E. Determine if the ceiling joists are face nailed to the parallel rafters with 3-10d nails (or per Table R802.5.1(9) if applicable).

_____ F. If posts are used to support beams and girders, then determine if positive connections are installed.

_____ G. Columns more than 48 in. in height shall be restrained to prevent lateral displacement at the bottom end.

_____ H. If columns are not enclosed by a continuous foundation, they shall be restrained at the bottom end.

4. Inspect Floor and Ceiling Headers (R502.4, R502.10, R802.9)

_____ A. Determine if the joists parallel to bearing walls above are doubled or an equivalent beam is used as a minimum. See fig. R502.2.

_____ B. Verify that full depth solid blocking is installed no more than 4 ft. on center if joists have been separated to accommodate piping/vents.

_____ C. Determine if the header span is 4 ft. or less. If so, than the header may be a single member the same size as the floor joist.

_____ D. Determine if the header span is greater than 4 ft.. If so, then the header is to be at least doubled.

_____ E. Determine if the approved joist hangers are used to connect the header and trimmer joists for header joists spans greater than 6 ft..

_____ F. Determine if the trimmer joists at the opening are single members. If so, then the single header must be within 3 ft. of the trimmer joist bearing.

_____G. Determine if the trimmer joists are doubled when the header is more than 3 ft. from the trimmer joist bearing.

FLOOR AND CEILING FRAMING INSPECTION LIST CONTINUED

_____H. Determine if the ceiling header span is 4 ft. or less. If so, then the header may be a single member the same size as the ceiling joist.

_____ I. Determine if the ceiling header span is greater than 4 ft.. If so, then the header and trimmer joists must be doubled, if the header exceeds 6 ft., then the header to trimmer connection must have approved joist hangers.

_____ J. Determine if the tail joists exceed 12 ft.. If so, then the tail joists at header must have approved framing anchors or be on a 2 in. X 2 in. ledger.

5. Inspect Joist and Lateral Support and Bridging (R502.7, R502.7.1, R802.8, R802.8.1)

_____A. Determine if the ends of the joists not over an intermediate support are laterally supported by full-depth, 2 in. thick solid blocking, a header, band or rim joist, or to adjoining stud.

_____ B. Determine that joists exceeding 2 X 12 are supported laterally by solid blocking, diagonal bridging or 1 in. by 3 in. strip nailed to bottom of joists. Determine that the lateral support is at intervals not exceeding 8 ft.

WALL FRAMING INSPECTION CHECKLIST

1. Inspect bearing walls [R602, R602.1, R602.2, R602.3, R602.3.1, R602.3.2, R602.3.3, R602.4.1, R602.8, R602.8.1, Fig. R602.3(1), 602.3(2) Tab. R602.3(1), R602.3(5)]

_____ A. Examine the bearing studs to determine grade and species.

_____ B. Determine the nominal size and spacing of studs.

_____ C. Compare bearing studs (size, spacing, grade, and species) to the requirements indicated on approved plans.

_____ D. Compare actual studs (size, spacing, grade) to Tab. R602.3(5).

_____ E. Determine that the stud length is less than 10 ft.. If so go to step F. If stud length is greater than 10 ft. then verify that stud size and spacing conforms to Tab. R602.3.1.

_____ F. If exterior walls have a top plate that is doubled, then the plates must overlap at corners and intersections with bearing walls. The top plate end joints must have a 24 in. minimum offset.

_____ G. If a single top plate is used, check that it is tied with a 3 in.x 6 in. x 0.036 in. thick galvanized steel plate nailed to each wall with 6-8d nails and rafters or joists are centered within 1 inch of supporting studs.

_____ H. Locate the position of bearing points of floor joists and floor or roof trusses relative to supporting studs below when studs are spaced at 24 in. on center:

- The joists or trusses must be located within 5 in. of a stud, or solid blocking equal in size to the stud must be installed if doubled top plates of 2-2x6's or 2-3x4's or a third top plate.

_____ I. Examine foundation studs in cripple walls to check that the studs are the same size dimensional lumber as studs above the foundation.

_____ J. If cripple walls are less than 14 in. in height, then inspect to check that they are sheathed with plywood or structural panels on at least one side and attached to both top and bottom plates or constructed of solid blocking.

_____ K. If foundation cripple walls exceed 4 ft. in height, determine if stud framing complies with size requirements for an additional story in Tab. R602.3(5).

_____ L. Examine studs to determine if top of sole plate is end nailed to studs with at least 2-16d nails.

_____ M. Determine if studs are toe nailed to sole plates with at least 3-8d or 2-16d nails.

_____ N. Determine if double studs are face nailed with 10d nails at 24 in. on center.

_____ O. Determine if continuous headers are toe nailed to studs with 4-8d nails.

WALL FRAMING INSPECTION CHECKLIST CONTINUED

_____ P. Determine if built-up corner studs are faced nailed with 10d nails at 24 in. on center.

2. Inspect Wall Headers [R602.7, Tab. R502.5(1) Tab R502.5(2)]

_____ A. Determine the grade of the headers from the grade mark on the lumber. Note ground snow load and building width.

_____ B. Measure the clear span of the header then determine the depth of the header and what the header is supporting.

_____ C. Locate the maximum header span from Tab. R502.5(1) for exterior headers or Tab. R502.5(2) for interior headers based on determined information.

_____ D. Compare actual header and span to table maximum span and note if in compliance.

_____ E. If sizes and spans are correct, but the grade is different than that specified on drawings or specifications, then determine if the grade used is equivalent or better than that required.

3. Inspect Wall Bracing [R602.10, Tab. R602.10.3, Tab R602.3(1)]

_____ A. Determine if a 1x4 in. let-in or approved metal strap bracing is located at each corner (end) and at least every 25 ft. on center, but not less than 16% of braced length. In Seismic Design Category A or B or exposed to wind speeds of 100mph or less and the wall is located on:

- A one-story building.
- The top of a two- or three-story building.
- The first story of a two-story building.
- The second story of a three-story building.

_____ B. If the wall condition is other than listed in step A, structural sheathing is required. (refer to Sheathing Inspection Checklist)

_____ C. Determine if each 1x4 in. brace is:

- Placed at an angle from horizontal between 45 and 60 degrees.
- Let into top and bottom plates and adjoining studs.
- Correctly fastened.

_____ D. If metal bracing is used, then verify that the metal braces are installed and mounted in accordance with the manufacturer’s specifications and/or installation instructions.

WALL FRAMING INSPECTION CHECKLIST CONTINUED

4. Inspect Fire Blocking (R602.8, R602.8.1, R602.8.1.2)

A. In all locations in steps below except E. Determine if the fire blocking is:
- ____ 2-inch nominal lumber.
- ____ Two thicknesses of 1-inch nominal lumber with broken lap joints.
- ____ One thickness of 23/32-inch wood structural panels with joints backed by 23-32-inch wood structural panels.
- ____ One thickness of ¾-inch particleboard with joints backed by ¾-inch particleboard.
- ____ ½-inch gypsum board.
- ____ ¼-inch cement-based millboard.
- ____ Mineral wool or fiberglass batts (full cross section and 16 inches high).

_____ B. Examine all concealed spaces of stud walls and partitions (including furred spaces) to determine if fireblocking is provided between floor and ceiling/roof intersections.

_____ C. Examine all interconnections between concealed vertical and horizontal framing (soffits, dropped and cove ceilings) to determine if fireblocking is provided.

_____ D. Examine all concealed spaces between stair stringers at the top and bottom of the run to determine if fireblocking material is in place.

_____ E. Examine all openings around vents, pipes, ducts, chimneys, and fireplaces at ceiling and floor level to determine if noncombustible fireblocking is in place.

SHEATHING INSPECTION CHECKLIST

1. **Inspect Particleboard Floor Underlayment (R503.3, Tab. R602.3{1}, Tab 602.3{2})**

   _____ A. Determine from grade mark on the particleboard if it is designed for use as floor underlayment, and is Type PBU.

   _____ B. Determine if the particleboard is at least ¼ in. thick.

   _____ C. Determine if fastening complies with Tab. R602.3{1} or Tab.R602.3{2}

2. **Inspect Plywood Combination Sub floor Underlayment (R503.2, Tab. R503.2.1{2}, Tab. R602.3{1}, Tab. R503.2.1.1{2})**

   _____ A. Determine if the plywood has a grade mark.

   _____ B. Determine from grade mark if the plywood is a Sanded Exterior Type.

   _____ C. Determine if the panels are continuous over two or more spans.

   _____ D. Determine if the face grain is perpendicular to the supports.

   _____ E. Determine if the unsupported edges have tongue-and-groove joints or blocking with lumber unless a ¼ in. underlayment is installed or a ¾ wood finish is used.

   _____ F. Determine from the species group or I.D. index that the panel thickness, and the joist spacing panel spans do not exceed the maximum allowable spans allowable spans specified in Tab. R503.2.1.1{2}.

   _____ G. If the panel is ¾ in. thick or less, then determine if 6d deformed nails or 8d common nails are spaced 6 in. on center at edges and 12 in. on center at intermediate supports.

   _____ H. If the panel is 7/8 in thick, then determine if 8d common or deformed nails are spaced 6 in. on center at edges and 12 in on center at intermediate supports.

3. **Inspect Wood Structural Panel Subflooring (R503.2, Tab. R503.2.1.1{1}, Tab. R602.3{1}, Tab. R602.3{2})**

   _____ A. Locate the wood structural panel sheathing grade mark.

   _____ B. Determine from the grade mark the span rating of the wood structural panel sheathing.

   _____ C. Determine if the panels are continuous over two or more spans.

   _____ D. Determine if the panel's long dimension is perpendicular to the joist.

   _____ E. Determine if the edges have tongue-and- groove joints, soled blocking or approved edge supports unless a ¼ in. thick underlayment is installed or the finish floor is a ¾ in. thick wood strip or has 1 ½ in. of concrete or cellular concrete placed over the sub-floor.

SHEATHING INSPECTION CHECKLIST CONTINUED

_____ F. Verify from the span rating the panel thickness, and the joist spacing that the actual spans do not exceed maximum allowable spans specified in Tab. R503.2.1{1}.

_____ G. If the panel is 5/16 in. to ½ in. thick, then determine if 6d common nails are spaced 6 in. on center along the edges and 12 in. on center at the intermediate supports. Requirements specified in Tab. R602.3{2} are also acceptable.

_____ H. If the panel is 19/32 in. to 1 In. thick, then determine if 8d common nails are spaced 6 in. on center along the edges and 12 in. on center at the intermediate supports. Requirements specified in Tab. R602.3{2} are also acceptable.

_____ I. If the panel is 1 1/8 in. to 1 ¼ in. thick, then determine if 10d common or 8d deformed nails are spaced 6 in. on center along the edges and 12 in. on center at the intermediate supports. Requirements specified in Tab. R602.3{2} are also acceptable.

4. Inspect plywood roof sheathing [R803.2, Tab. R503.2.1.1(1), Tab. R602.3(1), Tab R602.3(2)]

_____ A. Determine if the wood structural panel has a grade mark.

_____ B. Determine from the grade mark on the wood structural panel that it is an exterior type of sheathing. If the panel sheathing is exposed to weather from the underside only (e.g., soffit), it is permitted to be an interior type with exterior glue (Exposure 1).

_____ C. Determine if the panels are continuous over two or more spans.

_____ D. Determine if the panel long dimension is perpendicular to the supports.

_____ E. Determine if the panel edges are supported with solid blocking or an approved edge support.

_____ F. Using Table R503.2.1.1(1), determine if the panel span is within the allowable spans.

_____ G. Check for grade mark and proper installation of fire-retardant-treated plywood taking strength reduction factors into consideration.

_____ H. If the panel is 5/16” to 1/2” thick, then determine if 8d common nails are spaced 6 in. on center at edges, and 12 in. on center at the intermediate supports. Requirements specified in Tab. R602.3(2) are also acceptable.

_____ I. If the panel is 19/32” to 1” thick, then determine if 8d common nails are spaced 6 in. on center at edges, and 12 in. on center at the intermediate supports. Requirements specified in Tab. R602.3(2) are also acceptable.

_____ J. If the panel is 1 1/8” to 1 1/4" thick, then determine if 10d common or 8d deformed nails are spaced 6 in. on center at edges, and 12 in. on center at intermediate supports. Requirements specified in Tab. R602.3(2) are also acceptable.

SHEATHING INSPECTION CHECKLIST CONTINUED

5. Inspect particleboard wall sheathing [R602.3, R602.10.3, Tab. R602.3(1), Tab. R602.3(2), Tab. R602.3(4), R602.10.3, R605]

_____ A. Determine from the grade mark if the particleboard is designated for use as wall sheathing.

_____ B. Determine from the grade mark if the particleboard is type M-1 or M-2.

_____ C. Check that panels are NOT exposed to the weather.

_____ D. If the panel is 3/8 inch and its grade type is M-1, if the maximum stud spacing is 16”o.c. then determine that siding is nailed to the studs.

_____ E. If the panel is 1/2 inch and its grade type is M-2, then determine if the maximum stud spacing is 16”o.c. for siding nailed to the studs or sheathing.

_____ F. If the panels are horizontal, then determine if the end joints are offset such that four corners do NOT meet.

_____ G. Determine if all panel edges are supported.

_____ H. Determine if the particleboard wall sheathing has 1/16 inch gaps between each adjoining panel edge.

_____ I. Determine if the particleboard wall sheathing nails are placed at least 3/8 inch from each panel’s edge.

_____ J. If the panel is 5/16” to 1/2" thick, then determine if 6d common nails are spaced 6 inches on center at edges and 12 inches on center at the intermediate supports. Requirements specified in Tab. R602.3(2) are also acceptable.

_____ K. If the panels are to be used for wall bracing, then determine if type, location and amount of bracing is as specified in Sect. R602.10.3.

6. Inspect plywood wall sheathing [R602.3, R604, Tab. R602.3(1), Tab. R602.3(2), Tab. R602.3(3), R602.10.3]

_____ A. Determine if the wood structural panel has a grade mark.

_____ B. Determine from the grade mark if the wood structural panel type is an Exposure 1.

_____ C. Using Tab. R602.3(3), determine if the panel span rating is within the allowable spans.

_____ D. If the panel is 5/16” to 1/2" thick, then determine if 6d common nails are spaced 6 inches on center at edges and 12 inches on center at the intermediate supports. Requirements specified in Tab. R602.3(2) are also acceptable.

SHEATHING INSPECTION CHECKLIST CONTINUED

_____ E. If the panel is 19/32” to 1” thick, then determine if 8d common nails are spaced 6 inches on center at edges and 12 inches on center at intermediate supports. Requirements specified in Tab. R602.3(2) are also acceptable.

_____ F. If the panel is 1 1/8” to 1 1/4" thick, then determine if 10d common OR 8d deformed nails are spaced 6 inches on center at edges and 12 inches on center at the intermediate supports. Requirements specified in Tab. R602.3(2) are also acceptable.

_____ G. If the panels are to be used for wall bracing, then determine if they are placed as specified in Sect. R602.10.3.

ROOF FRAMING INSPECTION CHECKLIST

1. **Inspect Rafter Materials and Allowable Spans [R 802.1, R 802.5 Tables R 802.5.1(1)- R 802.5.1(8)]**

   _____ A. Locate the grade mark on the rafter to determine species and grade.

   _____ B. Measure and determine size, span and spacing of the rafter.

   _____ C. Compare findings with design specifications/drawings.

   _____ D. If sizes and spans are correct but the species and grade are different than indicated on specifications/drawings, then determine if the species and grade used are equivalent to or better than that specified by locating maximum span in table and verifying that it meets the actual span. Use Table R802.5.1(1) through R802.5.1(8).

   _____ E. If the size of the clear span of the rafter is greater than specified, than note the actual size and span.

2. **Inspect Roof Framing Construction [R 802.3, R 802.5, R 802.6, R802.8, R802.8.1, R 802.9**

   _____ A. Examine rafters that parallel ceiling joists to verify that joists are nailed to each rafter to form a continuous tie between exterior walls.

   _____ B. Examine joists nailed to parallel rafters to verify that each joist is face nailed to each rafter with 3-10d nails and that lapped joists are nailed together or that butted joists are tied together with plate to resist rafter thrust.

   _____ C. Examine rafters that are not parallel ceiling joists to determine method of rafter tie. If rafter tie is used then verify that:

      - Rafter ties are not more than 4ft.-0in. o.c.
      - Face nailed to rafter with 3-8d nails.
      - Tie is a minimum of a 1 x 4

   _____ D. Verify that rafters which are not parallel to ceiling joists and are without cross ties are attached with sub-flooring or metal straps attached to ends of rafters to provide cross tie.

   _____ E. Determine that roof rafters are toe nailed to plate with 2-16d nails.

   _____ F. Determine if rafter/ceiling joist heel joint connections meet requirements in Table R802.5.1(9).

ROOF FRAMING INSPECTION CHECKLIST CONTINUED

_____ G. Examine ridge board to determine that thickness is at least 1 inch nominal and that depth is not less than cut end of the rafter.

_____ H. Determine that roof rafters are toe nailed to ridge board with 4-16d or face nailed with 3-16d nails. If no ridge board, then rafters must be framed together with a gusset plate.

_____ I. If there are hip and valley rafters, then determine that thickness is not less than two inches nominal and that depth is not less than the cut end of the roof rafter. If none, go to Step L.

_____ J. Determine if all hip and valley rafters are supported at the ridge by a brace to a bearing partition or are designed to carry and distribute the specific load at that point.

_____ K. Determine if roof rafters are toe nailed to hip and valley rafters with 4-16d nails or face nailed with 3-16d nails.

_____ L. If roof pitch is less than 3 in 12, determine if all roof framing members that support rafters and ceiling joists (e.g., ridge beam, hips, and valleys) are designed as beams.

_____ M. Determine if the end of each rafter has at least 1 ½ inches of bearing on ood or 3 inches of bearing on masonry.

_____ N. Determine if rafters having a depth to thickness ratio exceeding 5:1 have lateral support at bearing points to prevent rotation.

_____ O. If rafters have a nominal depth to thickness ratio exceeding 6:1, determine if rafters are laterally supported by either solid blocking, diagonal bridging (wood or metal), or 1x3 inch bridging nailed to rafter at intervals no more than 8 feet.

_____ P. If the header in the roof opening is four feet or less, then verify that it is a single member the same size as the rafter, and that the trimmer rafters are doubled.

_____ Q. If the header in the roof opening is greater than four feet, then determine if the header and trimmer rafters are doubled.

_____ R. If the header exceeds a span of six feet, then approved joist hangers are required.

_____ S. If the tail rafters exceed 12 feet long, then support at the header must be framing anchors (joist hangers) or 2 x 2 minimum ledger strips.

ROOF FRAMING INSPECTION CHECKLIST CONTINUED

3. Inspect Roof Truss and Tie-Down (R802.10, R802.11)

_____ A Determine if the roof truss is built to comply with accepted engineering practice. Verify mark and truss drawings.

_____ B. Determine if roof truss is joined by nails, glue, timber connectors or other approved fastening.

_____ C. Determine if the roof truss is braced per truss design drawings or (if there are no specific bracing requirements) complies with the Truss Plate Institute's TPI/HIB recommendations for bracing wood trusses.

_____ D. Determine if metal plate connected wood trusses comply with the Truss Plate Institute's design specifications. (Check for truss plate institute's approval mark).

_____ E. Check that no roof truss member is cut, notched, drilled, spliced or altered, unless approved by a registered designed professional.

_____ F. Determine if the trusses are bearing at the proper bearing points marked on the truss.

_____ G. Determine if the correct fastening of truss to top plate conforms to the design drawings or truss drawings.

_____ H. If the roof assembly is subjected to wind uplift pressures of 20 psf or greater, as established by Table R301.2(2), then determine if rafter or truss ties are provided in accordance with Table R802.11.

ROUGH-IN FRAME INSPECTION CHECKLIST

1. Inspect cutting, notching and bored holes in floor and ceiling joists [R502.8, Fig. R502.8, R802.7]

_____ A. Verify that there are no notches in the middle 1/3 of any joist span.

_____ B. Verify that notches on the ends of the joist do not exceed 1/4 the depth of the joist.

_____ C. Verify that notches between the ends and middle 1/3 if the span do not exceed 1/6 the depth of the joist.

_____ D. If the top notches in the **ceiling** joists 1/6 of the joist depth, then verify that they are located no further than the joist depth from the face of the support and that they do not exceed 1/3 of the joist depth.

_____ E. Verify that notches are not longer than 1/3 of the joist depth.

_____ F. Verify that the tension side of the member four inches or greater in nominal thickness is not notched, except at the ends of the member.

_____ G. Check that there are no bored holes within two inches of the top or bottom of the joist.

_____ H. Confirm that the diameters of bored holes do not exceed 1/3 of the depth of the joist.

_____ I. Check that there are no holes within two inches of another hole or notch.

2. Inspect cutting, notching and bored holes in wall system [R602.6, R602.6.1, Fig. R602.6(1), Fig. R602.6(2), Fig. R602.6.1]

_____ A. Inspect top plates in exterior and bearing walls to determine if any notches exceed 50% of their width.

_____ B. If notches in top plates exceed 50% of their width, then verify that the top plate is reinforced with a galvanized metal tie not less than 0.054 (16 gage) inch thick and 1.5 inches wide fastened across the cut plate with 8 16d nails.

_____ C. Inspect bearing or exterior wall studs to verify that notches do not exceed 25% of the stud width.

_____ D. Inspect **interior nonbearing partitions** to verify that notches in studs do not exceed 40% of the stud width.

_____ E. Inspect studs for bored holes and check that the diameter of the hole does not exceed 40%, unless it complies with Step F.

_____ F. If the diameter of the hole in a **bearing or exterior wall** is greater than 40%, but does not exceed 60%, then the bored stud must be doubled.

ROUGH-IN FRAME INSPECTION CHECKLIST CONTINUED

_____ G. Inspect wall studs in nonbearing partitions to verify that bored holes do not exceed 60% of the stud width.

_____ H. If there are bored studs which are doubled, then determine that there are not more than two successive doubled bored studs.

_____ I. Determine that bored holes are at least 5/8 inch from the edge of the stud.

_____ J. Determine that bored holes are not in the same cross-section as notches.

3. Inspect rafter cutting, notching and bored holes [R802.7, R802.7.1]

_____ A. Examine lumber four inches and wider to verify that there are NO notches on the tension side except at either end.

_____ B. Examine rafters to verify that there are NO notches in the middle 1/3 of the span, and notches located in the top or bottom of the rafters do NOT exceed 1/6 the rafter depth. Verify that notches are not longer than 1/3 of rafter depth.

_____ C. Examine end notches to determine that they do NOT exceed 1/4 the depth of the rafter.

_____ D. Examine rafters to determine that there is NO bored hole within two inches of top or bottom of rafter or within two inches of another hole or notch.

_____ E. Examine bored hole (more than two inches from the top or bottom of the rafter) to determine that the hole diameter does not exceed 1/3 the depth of the rafter.

_____ F. If there are notches on cantilevered rafters, verify that the remaining portion of rafter is not less than four inch nominal and length of cantilever is not more than 24 inches.

NOTCHES & BORED HOLES TABLES

MAXIMUM ALLOWABLE SIZE FOR NOTCHES & BORED HOLES FOR FLOOR JOIST, CEILING JOIST & RAFTERS					
	2 X 4	**2 X 6**	**2 X 8**	**2 X 10**	**2 X 12**
Depth of end notches: floor, ceiling & rafters	7/8”	1 3/8”	1 13/16”	2 5/16”	2 13/16”
Depth of notches located between the ends & middle 1/3 of the span	9/16”	15/16”	1 3/16”	1 9/16”	1 7/8”
Length of notches	1 3/16”	1 13/16”	2 7/16”	3 1/16”	3 3/4”
Max. dia. of bored holes	0	1 1/2”	2 7/16”	3 1/16”	3 3/4”

MAXIMUM ALLOWABLE SIZE FOR NOTCHES & BORED HOLES FOR BEARING AND NON BEARING WALLS		
	2 X 4	**2 X 6**
Depth of notches in top plate for exterior & bearing walls	1 3/4"	2 3/4"
Depth of notches in wall studs for exterior & bearing walls	7/8”	1 3/8”
Depth of notches in wall studs for interior non bearing partitions	1 3/8”	2 3/16”
Max. dia. of bored holes for exterior & bearing walls	1 3/8”	2 3/16”
Max. dia. of bored holes for exterior & bearing walls if studs are doubled. (No more than 2 successive studs)	2 1/8”	3 5/16”
Max. dia. of bored holes for interior non bearing partitions	2 1/8”	3 5/16”

FINAL INSPECTION CHECKLIST

1. Inspect attached garage (R309)

_____ A. Inspect to see that there are no openings from a garage directly into a bedroom.

_____ B. Inspect to see that solid wood doors, solid or honeycomb core steel doors are not less than 1 3/8" thick, or are 20 minute fire-rated doors.

_____ C. Inspect to see that the garage is separated from the residence and its attic area with 1/2" gypsum board.

_____ D. If the garage is beneath habitable rooms, inspect to see that 5/8" type X gypsum board is applied to the ceiling.

2. Inspect smoke alarms (R313)

_____ A. Verify that there is a smoke alarm installed in each sleeping room.

_____ B. Verify that there is a smoke alarm installed outside of each separate sleeping area in the immediate vicinity of the bedrooms.

_____ C. Check for the installation of a smoke alarm on each story of the dwelling including full basement.

_____ D. Determine if a smoke alarm must be installed on each level of a split level:

- When the lower level is less than a full story below the upper level and not separated by a door, at least one smoke alarm must be installed on the upper level.

- If a door separates the levels, then an additional smoke alarm is required on the lower level.

_____ E. Confirm that smoke alarms are interconnected to provide an alarm which can be heard in all sleeping areas.

_____ F. If a building has undergone an addition or alteration requiring a permit, then confirm that smoke alarms have been installed in the entire building located as required for new construction. Interconnection and hard wiring not required unless the adjacent wall and ceiling coverings are being removed or there is an attic, crawl space or basement access available.

FINAL INSPECTION CHECKLIST CONTINUED

3. Inspect stairways and landings (R311.4.3, R311.5, R311.5.8.2)

_____ A. Determine if there is a floor or landing on each side of an exterior door.

_____ B. Inspect to see that the floor or landing is not more than 1 1/2" below the top of the threshold and that the landing is a minimum of 36”

_____ C. A landing is not required in the following cases:

- On the exterior side of the door, other than the required exit door, where a stairway of two or fewer risers are located.

- At the top of an interior flight of stairs provided a door does not swing over the stairs.

_____ D. Inspect to see that if a landing is in place in Step C, that it is not more than 7 3/4" below the top of the threshold.

_____ E. Check the following stairway dimensions:

_____ A minimum of 36” in width at all points above handrail height and below required headroom height.
_____ A minimum of 31.5” where a handrail is installed on one side.
_____ A minimum of 27” where a handrail is installed on both sides.
_____ Minimum headroom is 6’-8”.
_____ Maximum riser height is 7 3/4".
_____ Minimum tread depth is 10”.
_____ Riser height and tread depth shall not exceed the smallest by more than 3/8”.

_____ F. If open risers, determine that the opening between treads is less than 4” unless the stairs total rise is 30” or less.

_____ G. Inspect to see that a flight of stairs does not exceed a 12’ vertical rise between floor levels or landings.

_____ H. Inspect to see if there is a bulkhead enclosure stairway not part of the required building egress. If the height from the basement floor to finished grade is 8’ or less, then the stairway is exempt from the requirements of Sect. R311.4.3 & R311.5.

FINAL INSPECTION CHECKLIST CONTINUED

4. Inspect handrails and guards (R311.5.6, R312)

_____ A. If a stairway has 4 or more risers, a handrail must be provided on at least one side.

_____ B. Determine if the handrail is at least 34” but not more than 38” in height measured vertically from the nosing of the treads.

_____ C. TYPE I. Verify that the handgrip portion of the handrail has a:

_____ circular cross section with a diameter of 1 1/4" to 2”.
_____ noncircular cross section, perimeter dimension of 4” to 6 1/4" with a maximum cross section of 2 1/4".

_____ D. TYPE II. Handrails with a perimeter greater than 6 1/4" shall provide a graspable finger recess on both sides. See Sect. R311.5.6.3 #2.

_____ E. Verify that the handrail has a space of at least 1 1/2" between the wall and the handrail.

_____ F. Verify that the handrail is continuous the full length of the stairs, except for:

- A handrail interrupted by a newel post at a turn.
- The use of volute or turnout at the lowest tread.

_____ G. Verify that the handrail ends are returned or terminate in newel posts or safety terminals.

_____ H. If an open-sided stairway, porch, balcony, or raised floor is located more than 30” above the floor or grade below, then confirm that a guard has been installed.

_____ I. Verify that all guards are at least 36” in height at open sided floor areas or 34” in height on stairs.

_____ J. Verify that the required intermediate rails or ornamental closures are such that a 4” sphere cannot pass through the openings.

_____ K. Verify that the required guards on the sides of stair treads do not allow a 4 3/8” sphere to pass through the openings.

_____ L. Verify that the opening in the guard formed by the tread/riser will not permit a 6” sphere to pass through.

FINAL INSPECTION CHECKLIST CONTINUED

5. Inspect emergency escape and rescue openings (R310)

_____ A. Examine every sleeping room for at least one operable window or door which opens to the outside without the use of keys or separate tools.

_____ B. Basements with habitable space shall have at least one openable emergency escape and rescue opening.

_____ C. If the opening is a **nongrade floor** window, then check for:

- Maximum 44" from the floor to top of sill.
- Minimum net clear height equals 24" and minimum net clear width equals 20".
- Minimum net clear opening of 5.7 sq. ft.

_____ D. If the opening is a grade floor window, then check for:

- Maximum 44" above or below the finished grade adjacent to window sill.
- Minimum net clear height of 24".
- Minimum net clear width of 20".
- Minimum net clear opening of 5.0 sq. ft.

_____ E. If the opening is a door, then check that:

- The door opens directly to the exterior.
- It is openable from the inside without the use of a key or tool.
- It has a required full clear opening of at least 5.7 sq. ft.

_____ F. If emergency egress window has bars, grills or screens, then verify that they are releasable or removable from the inside without the use of a key or tool.

_____ G. If window well is required for escape and rescue window, then check for:

- Large enough well to allow window to be in full open position.
- Minimum net clear area of 9 sq. ft.
- Minimum horizontal projection and width of 36".
- If well depth is over 44", provide ladder. See Step H.

_____ H. If ladder is required for window well with depth greater than 44", then check for:

- Permanently affixed ladder or steps.
- Minimum inside width of 12" on ladder or steps.
- 3" minimum projection from wall to rungs.
- Maximum vertical spacing of 18" o.c. for rungs or steps.

FINAL INSPECTION CHECKLIST CONTINUED

6. Inspect glazing in hazardous locations (R308)

_____ A. Check hazardous locations to determine if safety glazing is required:

- Side swinging doors:
  - All locations except for wired glass in required fire doors and jalousies.
- All fixed and sliding doors.
- All storm doors.
- All unframed swinging doors.
- All shower, bathtub, hot tub, sauna and steam room doors and enclosures. Glazing less than 60" above a drain inlet.
- Glazing in individual fixed or operable panel:
  - Adjacent to a door.
  - With a glass vertical edge that is within a 24" arc of a closed door.
  - With a glass bottom edge that is less than 60" above the floor or walking surface.
- Fixed panels:
  - With panes exceeding 9 sq. ft. AND
  - Where the lowest edge is less than 18" off the floor, AND
  - Where the top edge is greater than 36" above the floor, AND
  - The walking surface is within 36" of glazing.
  - Safety glazing is required except when protected by a 1 1/2" minimum high horizontal bar located 36 +/- 2 inches above the walking surface. The bar must be capable of withstanding a horizontal load of 50 lbs./linear foot without contacting the glass.
- All glazing in railings.
- Glazing in walls and fences enclosing swimming pools, hot tubs and spas where the bottom edge of the glazing is less than 60" above a walking surface and within 60" of the water's edge.
- Glazing adjacent to stairways, landings and ramps within 36" horizontally of a walking surface when the exposed surface of the glass is less than 60" above the plane of the adjacent walking surface.
- Glazing adjacent to stairways within 60" horizontally of the bottom tread of a stairway in any direction when the exposed surface of the glass is less than 60" above the nose of the tread.
- For exempt locations See Sect. R308.4 for a complete list.

_____ B. Verify that human impact loads have been considered when the glazing was installed:

- For glass: Meets CPSC 16-CFR, part 1201 requirements.
- For plastic: Meets CPSC 16-CFR, part 1201.4(c)(2)(ii) requirements.
- For polished wire glass: Meets ANSI Z97.1 requirements.

_____ C. Verify that safety glazing is correctly labeled:

- Permanently marked in corner.
- Legible and visible after installation.
- Indoor applications marked "indoor use only."

_____ D. Refer to Sect. R308.6 for skylights and sloped glazing requirements.

Inspection Comment Sheet

Name: _____ File #: _____

Location: _____ Permit #: _____

Proposed Construction: _____