

Keller Zoning and Inspection Services
21 North Broad St.
Nazareth, PA 18064
(610)759-8227
Fax-(610)365-2954

RESIDENTIAL UCC BUILDING PERMITS AND INSPECTIONS

First Step is to call Municipality

Homeowners and/or Contractor must obtain a zoning permit from their appropriate Municipality. A copy of the zoning permit must be submitted prior to issuance of a UCC Building Permit.

Homeowner and/or Contractor must file a UCC Building Permit Application(s) along with documentation as outlined in the Building Plan Submittal Checklist.

After the UCC Permit Application has been reviewed, plans approved and appropriate fees are paid a building permit will be issued and construction may begin.

It is the responsibility of the Homeowner and /or Contractor to call Keller Zoning and Inspection Services to set up inspections. **A minimum of 48 hours notice is required for each inspection.**

The following Inspections are required (as applicable):

1. First inspection is of the footer-**before** concrete is poured-Rebar and forms (if applicable) must be in place.
2. Foundation
 - A) **Before** Wall is **POURED** with **REBAR** in place.
 - B) Foundation wall **before** back filled. Inspector must be able to see drainage tiles and waterproofing (if applicable).
3. Under slab piping inspection is necessary **before** pouring concrete (if applicable).
4. Framing, Rough electrical, Plumbing, Mechanical and Fire Caulk **must be finished** to receive a framing Inspection.
5. Insulation inspection, **before** wall covering is hung (dry wall, paneling, etc.).
6. Drywall Inspection **after** drywall is hung and **before** spackling is started.
7. Final inspection, all drywall, heating, electrical, and plumbing **must be completed** to receive a **Final Inspection**.

RESIDENTIAL BUILDING PLAN SUBMITTAL CHECKLIST

With the completed Application for Plan Review and Building Permit, **three (3) complete sets of Drawings and Specifications must be submitted**. One set of approved drawings will be returned to the applicant and must be kept on the jobsite at all times and available to the Code Inspector. **A copy of the Zoning Permit from your Municipality will be required prior to a Building Permit being issued.**

At a minimum, the site plan must include the location and size of the proposed construction and all existing structures. Proposed finished grades, lot line setbacks and streets must be shown.

All Plans and Specifications must include the following as applicable:

- Building area and height
- Details of safety glazing installation
- Elevations of all sides of building and room ceiling heights
- Complete floor plans with all rooms and spaces labeled and dimensioned
- Size (width and depth) of Footings and Piers along with rebar details
- Size and type of Foundations along with anchor and rebar details
- Type, size and location of all beams, columns and supports
- Concrete floor details (vapor barrier as required)
- Species and grade of all framing lumber
- Size, spacing and direction of floor joists
- Details of framing for all openings in floors and roofs
- Size, type and grade of all sheathing
- Size, grade and spacing of all interior and exterior wall studs
- Size, type and location of all headers
- Size, type and location of interior and exterior wall covering
- Size, direction, and spacing of all roof rafters and ceiling joists. If trusses are used, stamped specification sheets must be submitted and available on the jobsite.
- Pitch, type and details of all roofing and ventilation
- Stairway tread and riser sizes, headroom, height of handrail.
- Fireplace hearth, firebox, distance to combustibles, lintel & chimney construction
- Chimney footing sizes, termination level above roof, flue and thimble size
- Sizes, type and manufacturer of all windows and doors including the "U Factor" – rating sticker must left on windows for final inspection
- Location and type of all wall, ceiling and floor insulation including "R value"(Please indicate Compliance Path used to meet the International Energy Conservation Code and include specific calculations for review).
- Location, size, type and manufacturer of all mechanical equipment including efficiency ratings – ratings must be on equipment for final inspection

Keller Zoning and Inspection Services

UCC/Zoning
Code Enforcement

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BUILDING PLAN submittal checklist:

A copy of the **Zoning Permit** from the appropriate Municipality is required along with the completed application form and two complete sets of plans are required for review.

1. COMPLETE SET OF PLANS (3 sets)

A comprehensive set of construction plans must meet the following requirements.

- ⌚ Minimum scale of 1/4 inch = 1 foot; all dimensions must be shown.
- ⌚ Minimum sheet size: 8-1/2 x 11 inches, no pencil.
- ⌚ Name and project address.
- ⌚ Footing details (minimum footing depth is 36 inches).
- ⌚ Size, spacing and length of all posts, joists, and beams shown on a framing plan ("bird's eye view").
- ⌚ Handrail and guard details.
- ⌚ Stair details (if applicable) with a note relative to stairway illumination (e.g., "all stairs shall be provided with an artificial light source which will illuminate the stair including all treads and landings").
- ⌚ Attachment details, such as attachment to house, joist to beam connections, rail to post connections, post to footing, etc.
- ⌚ Hot tub manufacturer's information showing structural loading requirements (if applicable).
- ⌚ Some home center stores have deck design services available to the public. These plans are generally acceptable for submission with the permit application.

2. TYPICAL DECK DETAILS

A copy of the Typical Deck Details or American Wood Council's Publication DCA6 is available for review at our office. **For residential use only**, these details are informational resources only.

3. PLANS SUPPLEMENTED WITH THE TYPICAL DECK DETAILS

The Typical Deck Details may be used to supplement submitted framing plans. All conditions which deviate from or are not covered in the Typical Deck Details must be thoroughly detailed as required in Item 1 above.

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INSPECTION REQUIREMENTS

A copy of the approved permit, plat and building plans must be on the job site and must be available to the inspector during each inspection. Three inspections are required for a deck:

1. Footing Inspection: footing holes are inspected prior to concrete placement. At the time of the footing inspection, you must have the ledger board attached to the existing house.
2. Framing Inspection: joists, beams, connections and mechanical attachments are inspected prior to placement of decking. In this inspection, lag screws, thru bolts and expansion anchors at the ledger board are inspected and turned to insure proper installation and tightening. Access to the inside of the house may be required.
3. Final Inspection: all remaining items are inspected.

The framing and final inspections may be combined if all portions of the deck framing and mechanical attachments are completed.

SCHEDULING AN INSPECTION

It is the responsibility of the permit holder or the permit holder's representative to notify Keller Zoning and Inspections Services 610-759-8227, 8:30 a.m. to 4:00 p.m., Monday - Fridays at least 48 hours prior to when the stages of construction are reached that require an inspection. Ladders, scaffolds and testing equipment required to complete an inspection must be provided. Inspection requests may be made calling the listed number below; please have your permit number and property address available when scheduling an inspection. Requests made on automated systems will be scheduled for the next workday.

CHAPTER 5

FLOORS

SECTION R501 GENERAL

R501.1 Application. The provisions of this chapter shall control the design and construction of the floors for all buildings including the floors of *attic* spaces used to house mechanical or plumbing fixtures and *equipment*.

R501.2 Requirements. Floor construction shall be capable of accommodating all loads according to Section R301 and of transmitting the resulting loads to the supporting structural elements.

SECTION R502 WOOD FLOOR FRAMING

R502.1 Identification. Load-bearing dimension lumber for joists, beams and girders shall be identified by a *grade mark* of a lumber grading or inspection agency that has been *approved* by an accreditation body that complies with DOC PS 20. In lieu of a *grade mark*, a certificate of inspection issued by a lumber grading or inspection agency meeting the requirements of this section shall be accepted.

R502.1.1 Preservative-treated lumber. Preservative treated dimension lumber shall also be identified as required by Section R319.1.

R502.1.2 Blocking and subflooring. Blocking shall be a minimum of utility grade lumber. Subflooring may be a minimum of utility grade lumber or No. 4 common grade boards.

R502.1.3 End-jointed lumber. *Approved* end-jointed lumber identified by a *grade mark* conforming to Section R502.1 may be used interchangeably with solid-sawn members of the same species and grade.

R502.1.4 Prefabricated wood I-joists. Structural capacities and design provisions for prefabricated wood I-joists shall be established and monitored in accordance with ASTM D 5055.

R502.1.5 Structural glued laminated timbers. Glued laminated timbers shall be manufactured and identified as required in ANSI/AITC A190.1 and ASTM D 3737.

R502.1.6 Structural log members. Stress grading of structural log members of nonrectangular shape, as typically used in log buildings, shall be in accordance with ASTM D 3957. Such structural log members shall be identified by the *grade mark* of an *approved* lumber grading or inspection agency. In lieu of a *grade mark* on the material, a certificate of inspection as to species and grade issued by a lumber-grading or inspection agency meeting the requirements of this section shall be permitted to be accepted.

R502.1.7 Exterior wood/plastic composite deck boards. Wood/plastic composites used in exterior deck boards shall comply with the provisions of Section R317.4.

R502.2 Design and construction. Floors shall be designed and constructed in accordance with the provisions of this chap-

ter, Figure R502.2 and Sections R317 and R318 or in accordance with AF&PA/NDS.

R502.2.1 Framing at braced wall lines. A load path for lateral forces shall be provided between floor framing and *braced wall panels* located above or below a floor, as specified in Section R602.10.6.

R502.2.2 Decks. Where supported by attachment to an exterior wall, decks shall be positively anchored to the primary structure and designed for both vertical and lateral loads as applicable. Such attachment shall not be accomplished by the use of toenails or nails subject to withdrawal. Where positive connection to the primary building structure cannot be verified during inspection, decks shall be self-supporting. For decks with cantilevered framing members, connections to exterior walls or other framing members, shall be designed and constructed to resist uplift resulting from the full live load specified in Table R301.5 acting on the cantilevered portion of the deck.

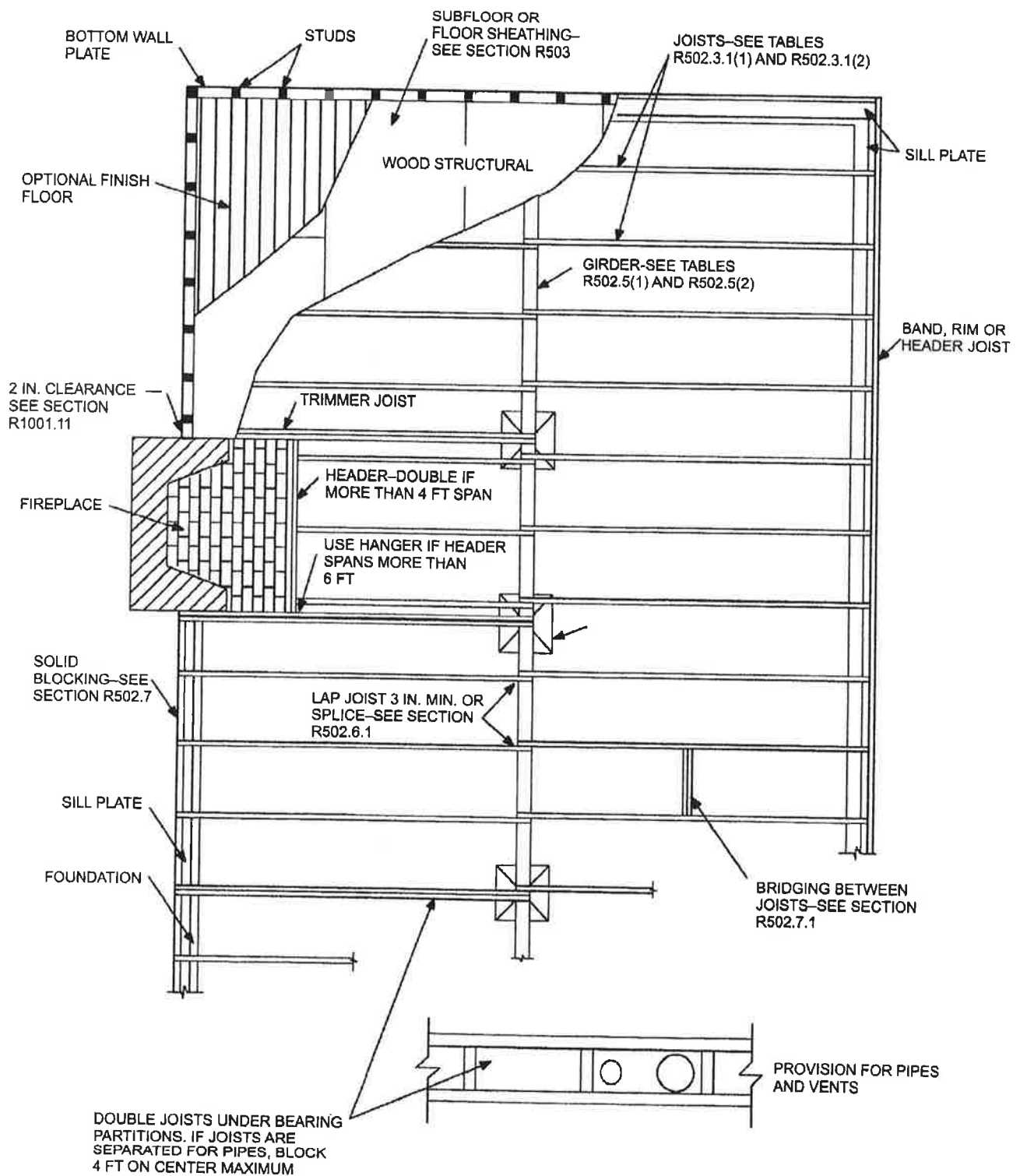
R502.2.2.1 Deck ledger connection to band joist. For decks supporting a total design load of 50 pounds per square foot (2394 Pa) [40 pounds per square foot (1915 Pa) live load plus 10 pounds per square foot (479 Pa) dead load], the connection between a deck ledger of pressure-preservative-treated Southern Pine, incised pressure-preservative-treated Hem-Fir or *approved* decay-resistant species, and a 2-inch (51 mm) nominal lumber band joist bearing on a sill plate or wall plate shall be constructed with 1/2-inch (12.7 mm) lag screws or bolts with washers in accordance with Table R502.2.2.1. Lag screws, bolts and washers shall be hot-dipped galvanized or stainless steel.

R502.2.2.1.1 Placement of lag screws or bolts in deck ledgers. The lag screws or bolts shall be placed 2 inches (51 mm) in from the bottom or top of the deck ledgers and between 2 and 5 inches (51 and 127 mm) in from the ends. The lag screws or bolts shall be staggered from the top to the bottom along the horizontal run of the deck ledger.

R502.2.2.2 Alternate deck ledger connections. Deck ledger connections not conforming to Table R502.2.2.1 shall be designed in accordance with accepted engineering practice. Girders supporting deck joists shall not be supported on deck ledgers or band joists. Deck ledgers shall not be supported on stone or masonry veneer.

R502.2.2.3 Deck lateral load connection. The lateral load connection required by Section R502.2.2 shall be permitted to be in accordance with Figure R502.2.2.3. Hold-down tension devices shall be installed in not less than two locations per deck, and each device shall have an allowable stress design capacity of not less than 1500 pounds (6672 N).

R502.2.2.4 Exterior wood/plastic composite deck boards. Wood/plastic composite deck boards shall be installed in accordance with the manufacturer's instructions.



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

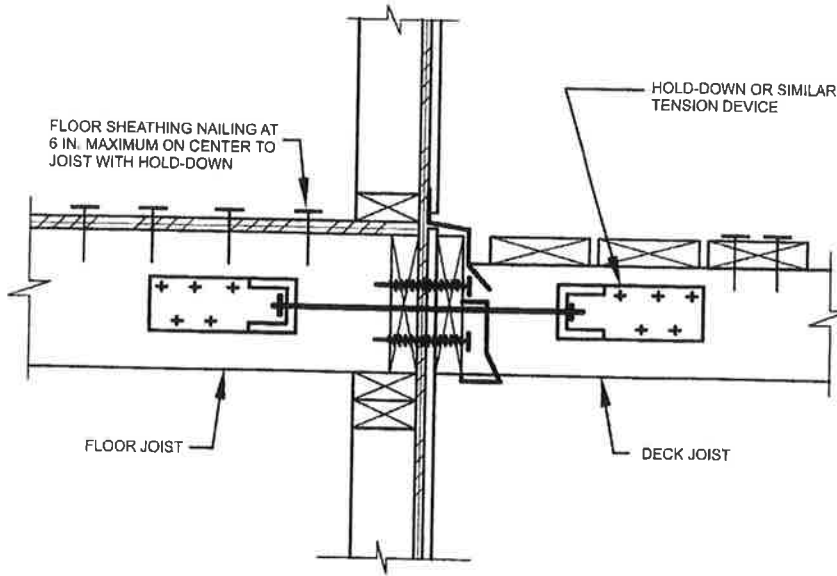
FIGURE R502.2
FLOOR CONSTRUCTION

TABLE R502.2.2.1
FASTENER SPACING FOR A SOUTHERN PINE OR HEM-FIR DECK LEDGER
AND A 2-INCH NOMINAL SOLID-SAWN SPRUCE-PINE-FIR BAND JOIST^{a, g}
 (Deck live load = 40 psf, deck dead load = 10 psf)

JOIST SPAN	6' and less	6'1" to 8'	8'1" to 10'	10'1" to 12'	12'1" to 14'	14'1" to 16'	16'1" to 18'
Connection details	On-center spacing of fasteners^{d, e}						
1/2 inch diameter lag screw with 15/32 inch maximum sheathing ^a	30	23	18	15	13	11	10
1/2 inch diameter bolt with 15/32 inch maximum sheathing	36	36	34	29	24	21	19
1/2 inch diameter bolt with 15/32 inch maximum sheathing and 1/2 inch stacked washers ^{b, h}	36	36	29	24	21	18	16

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm. 1 pound per square foot = 0.0479 kPa.

- a. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
- b. The maximum gap between the face of the ledger board and face of the wall sheathing shall be 1/2".
- c. Ledgers shall be flashed to prevent water from contacting the house band joist.
- d. Lag screws and bolts shall be staggered in accordance with Section R502.2.2.1.1.
- e. Deck ledger shall be minimum 2x8 pressure-preservative-treated No.2 grade lumber, or other approved materials as established by standard engineering practice.
- f. When solid-sawn pressure-preservative-treated deck ledgers are attached to a minimum 1 inch thick engineered wood product (structural composite lumber, laminated veneer lumber or wood structural panel band joist), the ledger attachment shall be designed in accordance with accepted engineering practice.
- g. A minimum 1 x 9 1/2 Douglas Fir laminated veneer lumber rimboard shall be permitted in lieu of the 2-inch nominal band joist.
- h. Wood structural panel sheathing, gypsum board sheathing or foam sheathing not exceeding 1 inch in thickness shall be permitted. The maximum distance between the face of the ledger board and the face of the band joist shall be 1 inch.



For SI: 1 inch = 25.4 mm.

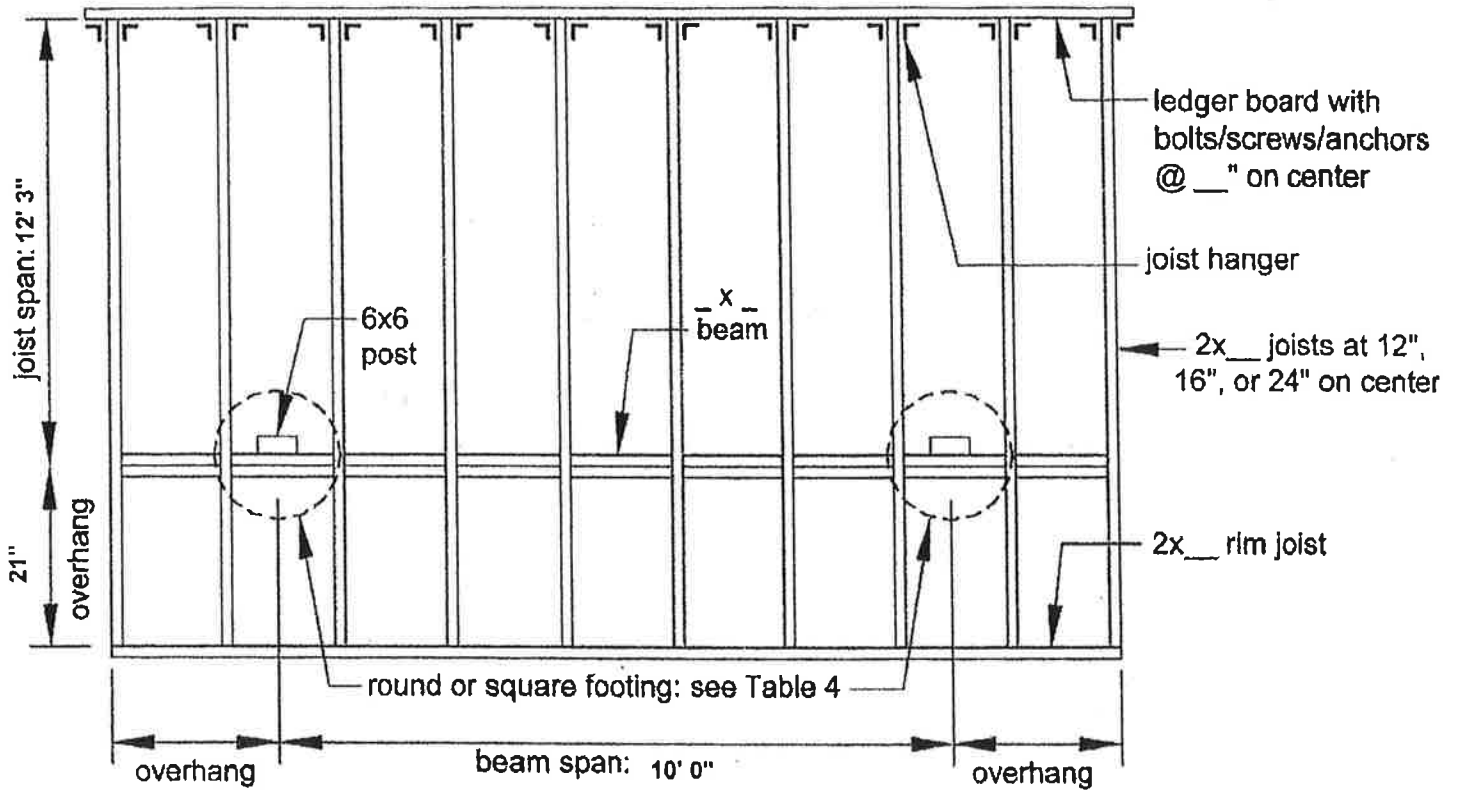
FIGURE 502.2.2.3
DECK ATTACHMENT FOR LATERAL LOADS

R502.3 Allowable joist spans. Spans for floor joists shall be in accordance with Tables R502.3.1(1) and R502.3.1(2). For other grades and species and for other loading conditions, refer to the AF&PA Span Tables for Joists and Rafters.

R502.3.1 Sleeping areas and attic joists. Table R502.3.1(1) shall be used to determine the maximum allowable span of floor joists that support sleeping areas and

attics that are accessed by means of a fixed stairway in accordance with Section R311.7 provided that the design live load does not exceed 30 pounds per square foot (1.44 kPa) and the design dead load does not exceed 20 pounds per square foot (0.96 kPa). The allowable span of ceiling joists that support attics used for limited storage or no storage shall be determined in accordance with Section R802.4.

Example 1 – Simple deck design (D R A F T)



1. Size Joist
2. Size joist cantilever/overhang.
3. Size girder or beam
4. determine loads for joist hanger
5. Size footing

Figure 14: General Attachment of Ledger Board to Band Joist or Rim Board

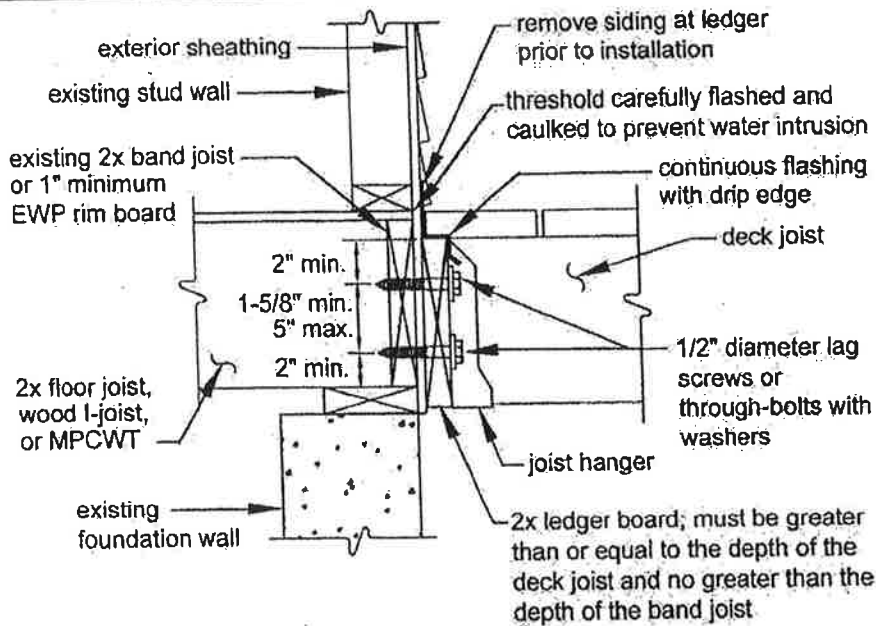


Figure 15: Attachment of Ledger Board to Foundation Wall (Concrete or Solid Masonry)

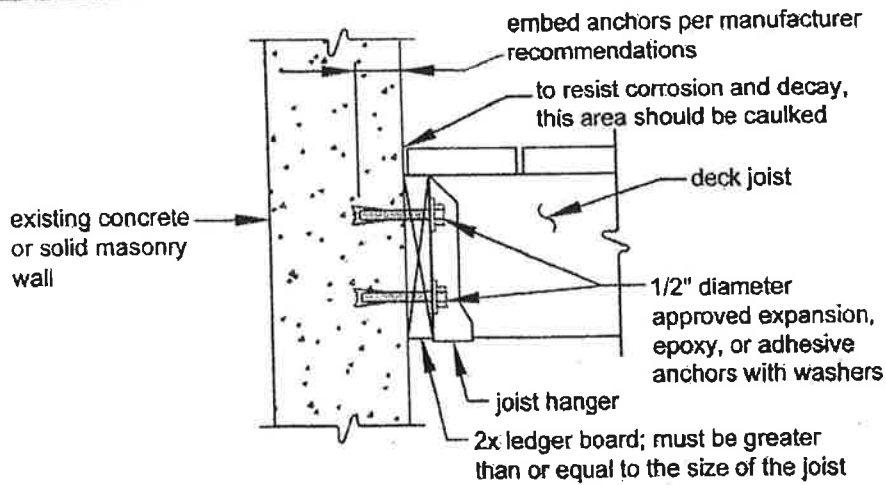
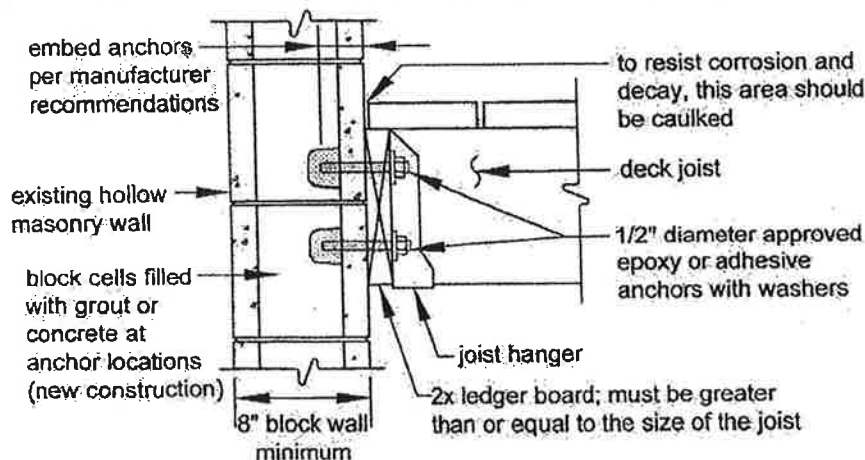


Figure 16: Attachment of Ledger Board to Foundation Wall (Hollow Masonry)



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RESIDENTIAL UNIFORM CONSTRUCTION CODE PERMIT APPLICATION

LOCATION OF PROPOSED WORK OR IMPROVEMENT

County: _____
Municipality: _____

Site Address: _____
Tax Parcel # _____

Lot # _____ Subdivision/Land Development: _____
Phase: _____ Section: _____

Owner: _____
Ph# _____ Fax # _____

Mailing Address: _____
E-Mail: _____

Principal Contractor: _____
Ph# _____ Fax# _____

Mailing Address: _____
E-Mail _____

Architect: _____ Ph# _____
Fax# _____

Mailing Address: _____
E-Mail: _____

TYPE OF WORK OR IMPROVEMENT (Check One)

____ New Building ____ Addition ____ Alteration ____ Repair
____ Demolition ____ Relocation ____ Foundation Only
____ Change of Use ____ Plumbing ____ Mechanical ____ Electrical

Describe the proposed work:

ESTIMATED COST OF CONSTRUCTION (reasonable fair market value)

\$ _____

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DESCRIPTION OF BUILDING USE (Check One)

Specific Use: _____
Use Group: _____
Change in Use: YES NO
If YES, Indicate Former: _____
Maximum Occupancy Load: _____
Maximum Live Load: _____

BUILDING/SITE CHARACTERISTICS

Number of Residential Dwelling Units: _____ Existing, _____ Proposed
Mechanical: Indicate Type of Heating/Ventilating/Air Conditioning
(i.e., electric, gas, oil, etc.) _____
Water Service: (Check) Public Private
Sewer Service: (Check) Public Private
Septic Permit # _____)
Electric Service Rating: _____
Type of Construction: _____

Does or will your building contain any of the following:

Fireplace(s): Number _____ Type of Fuel _____ Type Vent _____
Elevator/Escalators/Lifts/Moving walks: (Check) YES NO
Sprinkler System: YES NO
Pressure Vessels: YES NO
Refrigeration Systems: YES NO

BUILDING DIMENSIONS

Existing Building Area: _____ sq. ft. NO. of Stories: _____
Proposed Building Area: _____ sq. ft.
Height of Structure Above Grade: _____ ft.
Total Building Area: _____ sq. ft.
Area of the Largest Floor: _____ sq. ft.

FLOODPLAIN

Is the site located within an identified flood hazard area? (Check One) YES NO

Will any portion of the flood hazard area be developed? (Check One) YES NO N/A

Owner/Agent shall verify that any proposed construction and/or development activity complies with the requirements of the National Flood Insurance Program and the Pennsylvania Flood Plain Management Act (Act 166-1978), specifically Section 60.3

Lowest Floor Level: _____

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HISTORIC DISTRICT

Is the site located within a Historic District? _____ YES _____ NO
If construction is proposed within a Historic District, a certificate of appropriateness may be required by the Municipality.

The applicant certifies that all information on this application is correct and the work will be completed in accordance with the approved construction documents and PA Act 45 (Uniform Construction Code) and any additional approved building code requirements adopted by the Municipality. The property owner and applicant assumes the responsibility of locating all property lines, setback lines, easements, rights-of way, flood areas, etc. Issuance of a permit and approval of construction documents shall not be construed as authority to violate, cancel or set aside any provisions of the codes or ordinances of the Municipality or any other governing body. The applicant certifies he/she understands all the applicable codes, ordinances and regulations.

Application for a permit shall be made by the owner or lessee of the building or structure, or agent of either, or by the registered design professional employed in connection with the proposed work.

I certify that the code administrator or the code administrator s authorized representative shall have the authority to enter areas covered by such permit at any reasonable hour to enforce the provisions of the code(s) applicable to such permit.

Signature of Owner or Authorized Agent

Print Name of Owner or Authorized Agent

Address

Date

Directions to Site:

