



EZ PERMIT STANDARD

DECK

For New Decks attached to an Existing
Single Family Dwelling

Revised 8/26 (IRC-2021)

EZ Permit Standard: Deck

Obtain zoning and building permits for building a deck *without* submitting plans by meeting the Conditions and Construction Requirements below.

The deck must be attached to a single-family dwelling. Deviations will require submission of new permit applications and plans to the Department.

This standard may not be utilized to legalize work performed without a permit.

Conditions

- Deck must be attached to an existing single-family dwelling.
- Deck may not be located above the 1st floor, a separate building permit is required for roof decks.
- Deck must be in the rear yard. The deck cannot be in the front or side yards.
- Maximum size of deck: 160 sq ft [or **216 sq. ft. with intermediate post installations**]
- A minimum distance of 3'-0" must be maintained from the deck to the rear property line or common driveway.
- All support columns must be located at least 1'-6" from all property lines.
- Deck supports may not prevent vehicular access to a garage, regardless of the use of garage.
- Maximum height shall be 14'-0" from the top of the footing to the underside of the beam.
- A structure 12" above grade is a deck, if the deck is 30" above grade it requires a guard rail
- Area below the usable surface of the deck shall not be enclosed with solid walls.
- Clearance below decks, that are open to pedestrian access, shall be a minimum of 6'-0".
- Deck may not have a roof or wall enclosures above the usable surface.
- Door to deck may only be installed in existing width openings.
- No new window or door openings permitted to be made in the rear wall, separate building permits are required for new or enlarged openings.
- Decks attached to buildings located on a corner property may not extend beyond the building line.
- Deck may not support a spa, hot tub, or other unusual amount of dead or live load.
- Stairs leading to grade are only permitted to be erected for decks installed on a detached or semi-detached single-family dwelling.

Construction Requirements

Materials

- Structural framing lumber (e.g., posts, beams, and joists) used in construction must be pressure treated wood, and of **Southern Pine species**.
- Decking, stair treads, guards, and handrails may be pressure treated wood of Southern Pine species, or plastic composite.
- Hardware and fasteners must be hot-dipped galvanized or stainless steel and compatible with pressure treated wood.

Concrete Footings

- All footings shall be placed 30" below grade (the frost line) on undisturbed natural soil.
- Minimum footing thickness = Six (6)-inches
- Minimum size of footing: 16" diameter at end posts [**19" diameter at intermediate posts**]
- Maximum area of deck = 160 SF [**or 216 SF with intermediate post installations**]

Vertical Columns (Posts must be minimum nominal size 6" x 6".)

- Posts must bear on footings and shall be restrained to prevent lateral displacement at the bottom support. That support must be provided by manufactured connectors or minimum post embedment to the frost line.
- Diagonal bracing must be installed using a minimum 2"x4" located at all posts and must be bolted to posts, beams, and joists with 1/2" lag screws.

Deck Post to Deck Beam

- Deck beams shall be attached to deck posts using manufactured post-to-beam connectors that are properly sized for the post and beam sizes. All bolts shall have washers under the head and nut.



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Beams

- Beam plies shall be fastened with two rows of minimum 10d (3-inch x 0.128-inch) nails at 16-inches on center along each edge.
- Minimum beam end-bearing length = 1.5-inches bearing on wood; 3-inches on concrete or masonry.
- Beams shall be permitted to cantilever at each end up to one-fourth of the allowable beam span.

Table 1: Maximum deck beam span (post to post) limitations are as follows:

Effective Joist Span	Maximum Deck Beam Span (3 – 2 x 12 Beam)
≤ 12'-0"	10'-9"
≤ 14'-0"	10'-0"
≤ 16'-0"	9'-4"
≤ 18'-0"	8'-10"

Joist Framing

- Joists framing into the side of the ledger board or beam must be supported by approved joist hangers.
- Joists bearing on a beam shall be properly connected to the beam to resist lateral displacement.
- Minimum joist end-bearing length = 1.5-inch bearing on wood or metal; 3-inches on concrete or masonry.
- Joists are permitted to cantilever over the beam, but not more than ¼ of the joist back span.
- Joists shall be solidly blocked at beam when cantilevered
- **Detail A** – typical layout of joist framing requirements

Table 2: Joist spans shall be based on the following table:

Maximum Deck Joist Span		Maximum Cantilever Span	
Joist Size	16" O.C. Spacing	Joist Back Span	Maximum Cantilever
2 x 8	11'-10"	8'-0"	2'-0"
2 x 10	14'-0"	10'-0"	2'-6"
2 x 12	16'-6"	12'-0"	3'-0"

Note: Where lateral restraint is provided by rim joists, they must be secured to the end of each joist with no less than three (3) 10d (3-inch x 0.128-inch) nails or three (3) No. 10 x 3-inch long wood screws.

Decking

- Must be installed perpendicular to joist framing with minimum nominal thickness of 1-1/4" x 6" for joist spacing of 12-inches O.C for single span and 16-inch O.C. for multiple span.
- Plastic composite decking shall comply with ASTM 7032 and must be installed per the manufacturer's instructions.
- Each decking board must bear on a minimum of three joists, or there must be blocking installed between joists.

Guard Rail (around deck perimeter for decks greater than 30 inches above grade)

- Height: minimum 36"; maximum 42" **AND** no opening greater than 4" is permitted in the railing design.
- 4" x 4" guard posts shall not be notched at the connection to the supporting structure.
- **Detail B & C** - Where guards are supported by deck framing, guard loads shall be transferred to deck framing with a continuous load path to the deck joists in a manner to prevent rotation of the joist or beam (e.g., blocking w/ anchors).
- When guards are supported by side of deck framing fastening into blocking end grain only is not allowed.

Stair Construction (for semi-detached and detached structures only)

- Stairways – minimum width = 36 inches; landing area at top and bottom of at least 36" X 36".
- Minimum tread depth = 10 inches; maximum riser height = 7-3/4 inches;
- Railing/handrail height: minimum 34 inches; maximum 38 inches

Attachment to Primary Structure

- Decks must be securely anchored to the house through the attachment of a **ledger board** using either Detail B or Detail C in this document. (Other options are permissible by the Code, but not through this EZ Permit.)
- Fasteners – Shall be minimum ½" diameter; spaced maximum of 16" O.C.; staggered top and bottom
Detail D – attaching to wood framed walls (ledger board must be greater than or equal to the size of the joists)
Detail E – attaching to masonry walls (ledger board shall not be solely attached to a non-structural masonry veneer)

Note: Poor connections of ledgers often result in collapse of the deck!

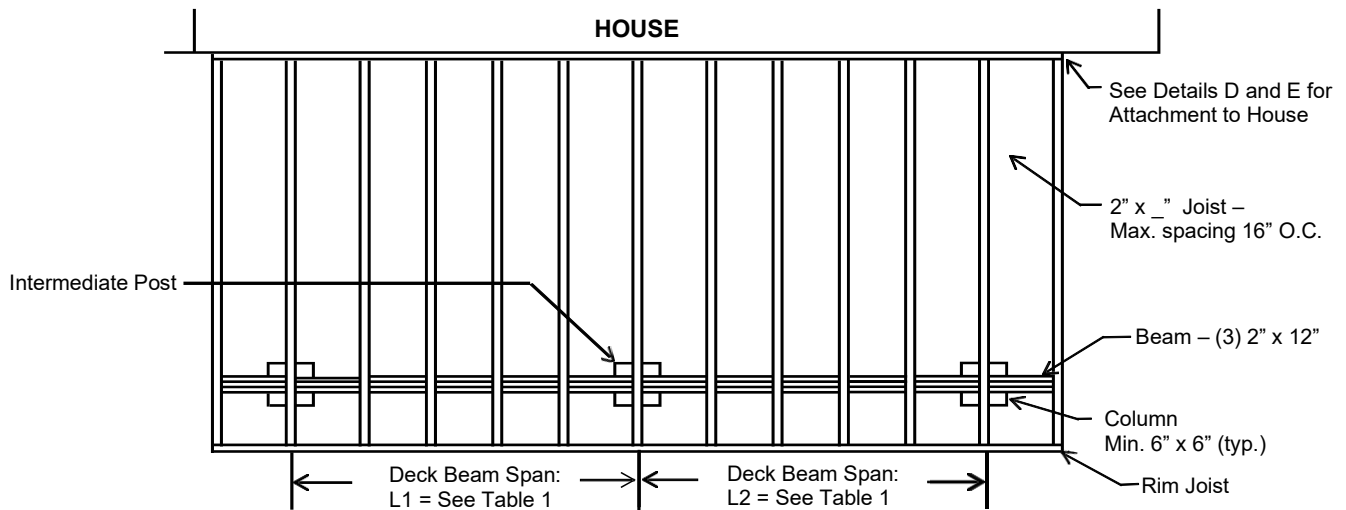


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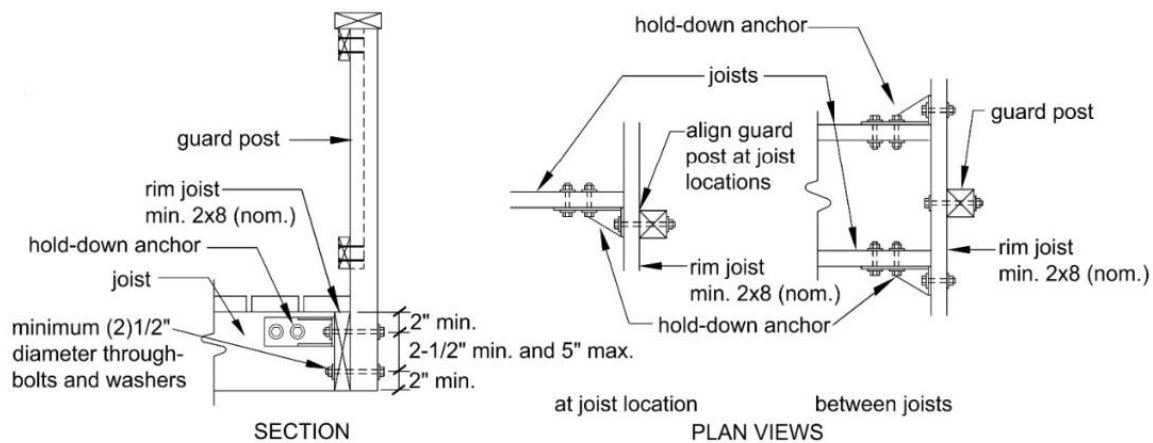
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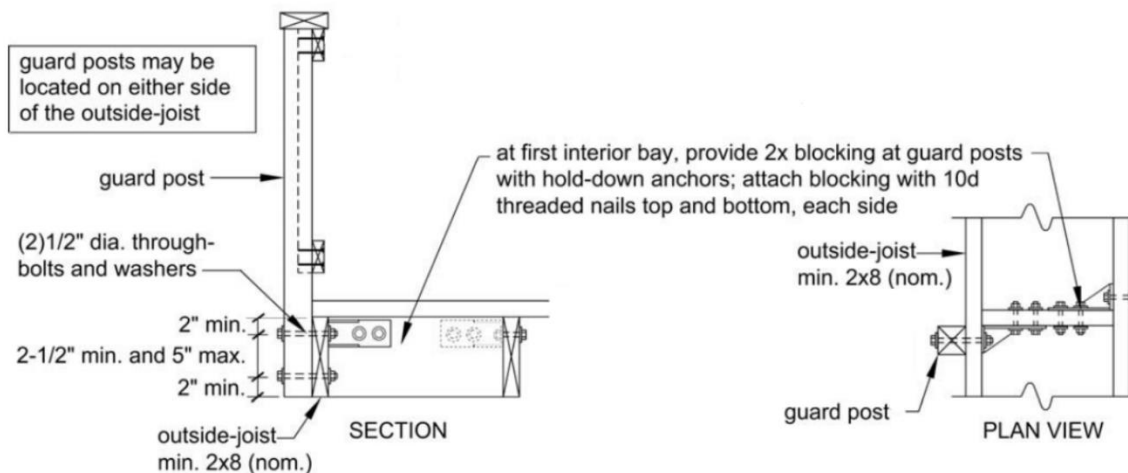
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Detail A: Joist Framing Requirements



Detail B: Guard at Rim Joist



Detail C: Guard at Side Joist



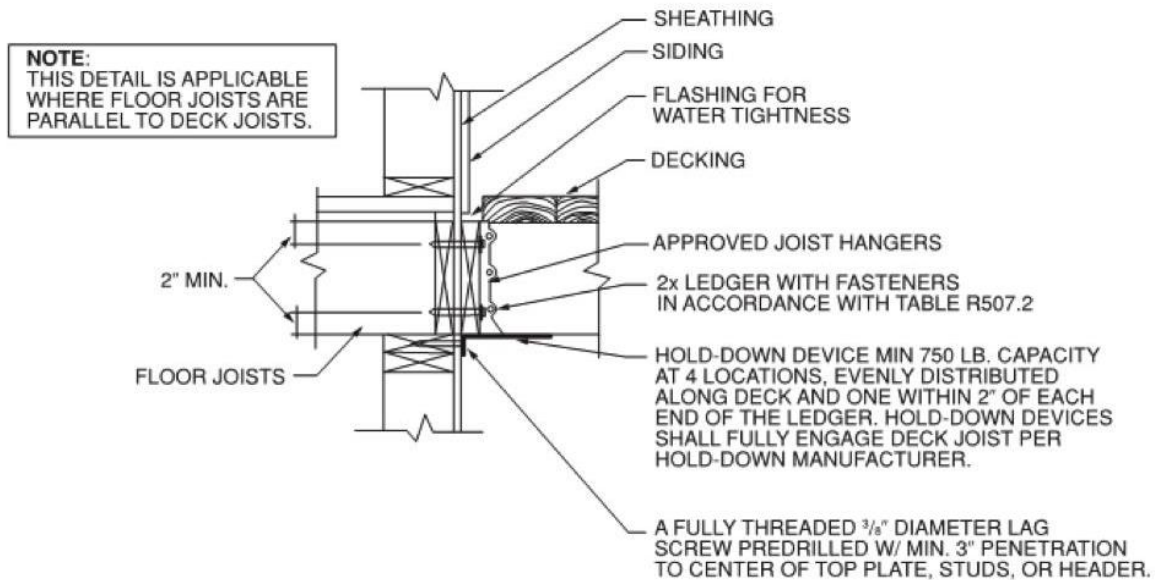
CITY OF PHILADELPHIA
DEPARTMENT OF LICENSES & INSPECTIONS
Construction Services Division
Municipal Services Building - Concourse Level
1401 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19102

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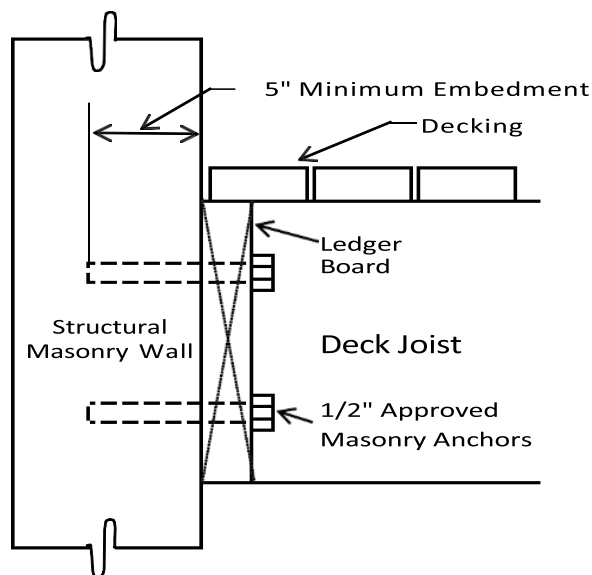
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Detail D: Attachment of Ledger to Wood Framed Wall and Fasteners for Lateral Support



Detail E: Attachment of Ledger Board to Structural Masonry Wall

Note: Ledger Board is NOT permitted to be supported on Stone/Masonry Veneer Exterior Wall Coverings.

AP _____ Applicant's Signature: _____