

## **FORKS TOWNSHIP DECK GUIDE**

Forks Township has assembled the information contained in this guide to assist homeowners when planning to construct a deck on their property. It contains general information regarding zoning and setback issues as well as materials and types of construction permitted by township ordinances.

Please also know that the Township's hours are Monday thru Friday 7:30 am to 4:00 pm. All permit applications must be considered complete before review (this means all plans and specifications must be included with the application, contractor's workman's compensation coverage information submitted, and plot plan included).

### **Permits and plans**

A permit application must be submitted (the deck worksheet) with complete construction details (including but not limited to) ledger, flashing, footer, framing, hardware, hand and guardrail details. A detailed plot plan showing easements, size of deck and setbacks from all property lines must be submitted with the permit application. No deck shall be constructed, installed, enlarged, or altered unless and until the appropriate permit has been secured from the building & zoning department.

### **General notes**

Decks constructed according to this guide are not to be used for a hot tub support. Decks for hot tubs have heavy design loads that are outside the scope of this guide and generally require a structural engineer's sealed design. Decks shall not be attached to house overhangs cantilevered box or bay windows or brick veneers. These decks would require self supporting construction methods.

## **Footing & piers**

Footing and piers shall be properly sized for the design and loading of the deck. Post holes for pier footings must be excavated to a minimum of 36" below grade. A minimum of 12" builder tube is required for piers; for 4X4 post and a minimum 18" tube for 6X6's with mechanical fasteners post to pier and post to beam.

## **Framing**

First floor decks require 4X4 posts; second floor decks require 6X6 posts. Beam and joist size must be clearly indicated on plans. Ledger board shall be secured according to the chart provided within (see span chart table R 502.2.2.1) Ledger locks are allowed only on the ledgers as per manufacturer's specifications.

## **Railings**

Railings are required around all elevated (30" or more above grade) deck areas, at a minimum of 36" height, and a minimum spacing permitted between balusters or spindles are 4". Handrails are also required on stairs with 3 or more steps.

## **Deck boards**

Deck boards must be a minimum of 5/4

## **Inspections**

A minimum of 3 inspections are required for all decks; post holes prior to pouring concrete; ledger board must be installed and flashed at the time of footing inspection; framing inspection when all beams and joists have been placed; final inspection when all work is complete.

Date \_\_\_\_\_

Permit No. \_\_\_\_\_

**APPLICATION FOR BUILDING AND/OR ZONING PERMIT**  
**FORKS TOWNSHIP**  
 Northampton County, Pennsylvania  
**OFFICE OF ZONING AND BUILDING ADMINISTRATION**  
 Phone: 610-250-2247 Fax: 610-252-0693

**PROPOSED USE:**

- |                              |                           |
|------------------------------|---------------------------|
| New Building – Single Family | Razing or Moving Building |
| Detached Dwelling            | Accessory Building        |
| Attached Dwelling            | Sign                      |
| Addition to Building         | Commercial                |
| Exterior Alteration          | Manufacturing             |
| Roof Addition                | Garage                    |
| Interior Renovation          | Deck                      |
|                              | Enclosed Porch            |

**ALL PERMIT APPLICATIONS MUST BE COMPLETE BEFORE REVIEW (ALL PLANS & SPECIFICATIONS MUST BE INCLUDED WITH THE APPLICATION, CONTRACTOR'S WORKMEN'S COMPENSATION COVERAGE INFORMATION SUBMITTED, AND PLOT PLAN INCLUDED. (Two Plot Plans and 2 sets of building plans must accompany this application. Three (3) sets of building plans must accompany Commercial applications.)**

This permit application is for the following address: \_\_\_\_\_

Tax Map No. \_\_\_\_\_ Zoning Classification \_\_\_\_\_

Property Owner's Name \_\_\_\_\_

Address \_\_\_\_\_ Tel. No. \_\_\_\_\_

Applicant's Name \_\_\_\_\_

Address \_\_\_\_\_ Tel. No. \_\_\_\_\_

General Contractor's Name \_\_\_\_\_ Tel. No. \_\_\_\_\_

Designer/Engineer/Architect \_\_\_\_\_ Tel. No. \_\_\_\_\_

Plumber's Name \_\_\_\_\_ Tel. No. \_\_\_\_\_

Electrician's Name \_\_\_\_\_ Tel. No. \_\_\_\_\_

Subdivision \_\_\_\_\_

Section \_\_\_\_\_ Lot No. \_\_\_\_\_

Width of Lot (at point of 25 ft setback) \_\_\_\_\_ Square footage of plot \_\_\_\_\_

Type of Home Ranch 1 Story 1 1/2 Story 2 Story Split Bi-Level

Number of Finished Rooms \_\_\_\_\_ No. of Bedrooms \_\_\_\_\_ No. of Baths \_\_\_\_\_

Heating Gas Oil Electric

Water Supply \_\_\_\_\_ Sewage System Type \_\_\_\_\_

Estimated Cost or Value of Construction (Exclude cost of land) \$ \_\_\_\_\_

Estimated Starting Date \_\_\_\_\_ Estimated Finish Date \_\_\_\_\_

Any statements made in this application that are false or fraudulent shall void this application and make the signer subject to prosecution under the law.

Stated uses and improvements shall conform to any and all other governmental regulations and permissions necessary and applicable.

Signature of Property Owner or Agent \_\_\_\_\_ Date \_\_\_\_\_

Telephone No. \_\_\_\_\_ Work Tel. No. \_\_\_\_\_

<b>TOWNSHIP USE ONLY:</b>	
Square Feet of Living _____	Size of Structure _____
Permit Fee: Zone \$ _____	Bldg. \$ _____ C.O. \$ _____

The applicant for the building permit, in compliance with Act 44 of 1993 hereby submits (check one)

- Certificate of Insurance
- Certificate of Self-Insurance
- Affidavit of Exemption

1. This policy provides coverage for the requirements of the Worker's Compensation Act, the Occupational Disease Act and where applicable, the federal Longshore and Harbor Workers Compensation Act.
2. The insurer has been notified that the municipality issuing the building permit is to be named a policy certificate holder.
3. Any subcontractors used on this project will be required to carry their own Workers Compensation coverage.
4. The contractor/policy holder will notify the municipality of any change in status, cancellation or expiration.
5. Violation of the Act or the terms of this permit will subject the contractor to a stop-work order and other fines as provided by law.
6. The applicant is not permitted to employ any individual to perform work on this project pursuant to the permit in violation of the Act.

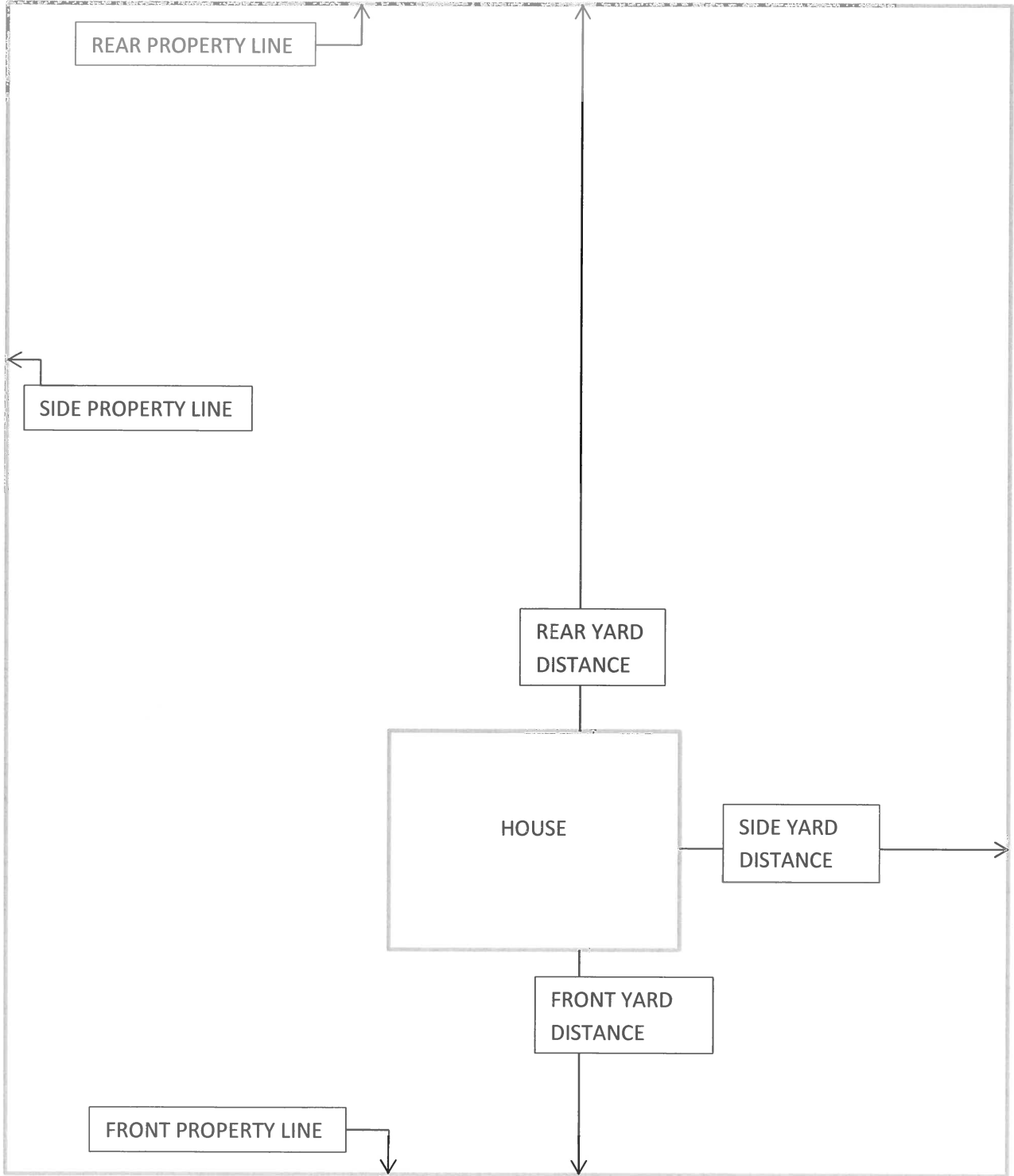
If a Certificate of Insurance has been submitted, please complete the following:

Name of Insurer \_\_\_\_\_

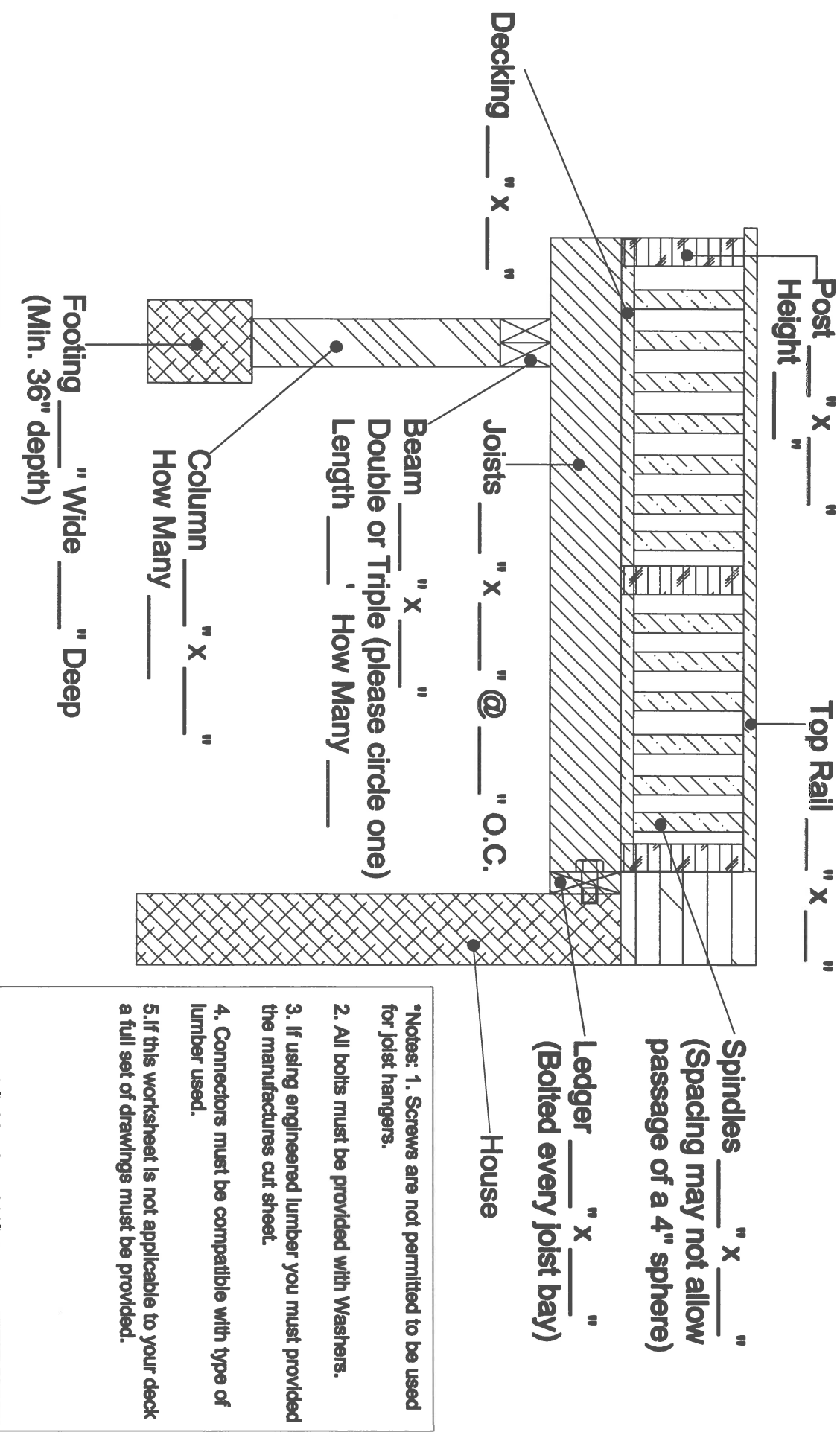
Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Policy Number \_\_\_\_\_



# Typical Deck Worksheet



Spindles \_\_\_\_\_ " x \_\_\_\_\_ "  
 (Spacing may not allow  
 passage of a 4" sphere)

Ledger \_\_\_\_\_ " x \_\_\_\_\_ "  
 (Bolted every joist bay)

House

\*Notes: 1. Screws are not permitted to be used for joist hangers.

2. All bolts must be provided with Washers.
3. If using engineered lumber you must provide the manufactures cut sheet.
4. Connectors must be compatible with type of lumber used.
5. If this worksheet is not applicable to your deck a full set of drawings must be provided.

Size of Deck: Width \_\_\_\_\_ ' Length from house \_\_\_\_\_ ' Height \_\_\_\_\_ '

Steps \_\_\_\_\_ Tread Depth \_\_\_\_\_ " Width \_\_\_\_\_ " Risers \_\_\_\_\_ " Stringers \_\_\_\_\_ " x \_\_\_\_\_ " How Many \_\_\_\_\_

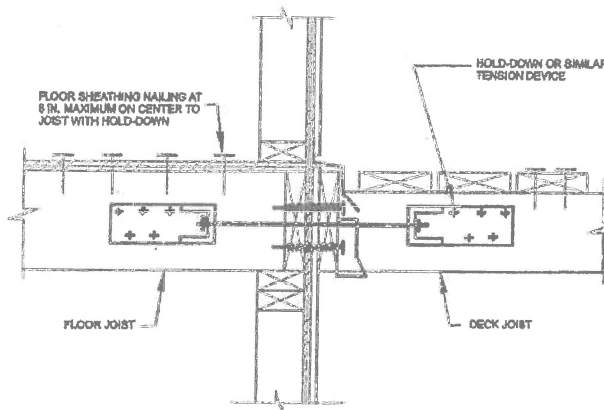
Will you need to create or enlarge any openings for a door? Yes or No  
 If yes, you will need to provide a sectional drawing showing new lintel/header.

**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<sup>1,4</sup>**  
 (Deck live load = 40 psf, deck dead load = 10 psf)

JOIST SPAN	6' and less	6'1" to 6'	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 <sup>4,5</sup>						
1/2 inch diameter lag screw with 1 1/2 inch maximum sheathing <sup>2</sup>	30	23	18	15	13	11	10
1/2 inch diameter bolt with 1 1/2 inch maximum sheathing	36	36	34	29	24	21	19
1/2 inch diameter bolt with 1 1/2 inch maximum sheathing and 1/4 inch stacked washers <sup>2,3</sup>	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 1/4".
- 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**

**R507.7.1 Deck post to deck beam.** Deck beams shall be attached to deck posts in accordance with Figure R507.7.1 or by other equivalent means capable to resist lateral displacement. Manufactured post-to-beam connectors shall be sized for the post and beam sizes. All bolts shall have washers under the head and nut.

**Exception:** Where deck beams bear directly on footings in accordance with Section R507.8.1.

**R507.8 Deck posts.** For single-level wood-framed decks with beams sized in accordance with Table R507.6, deck post size shall be in accordance with Table R507.8.

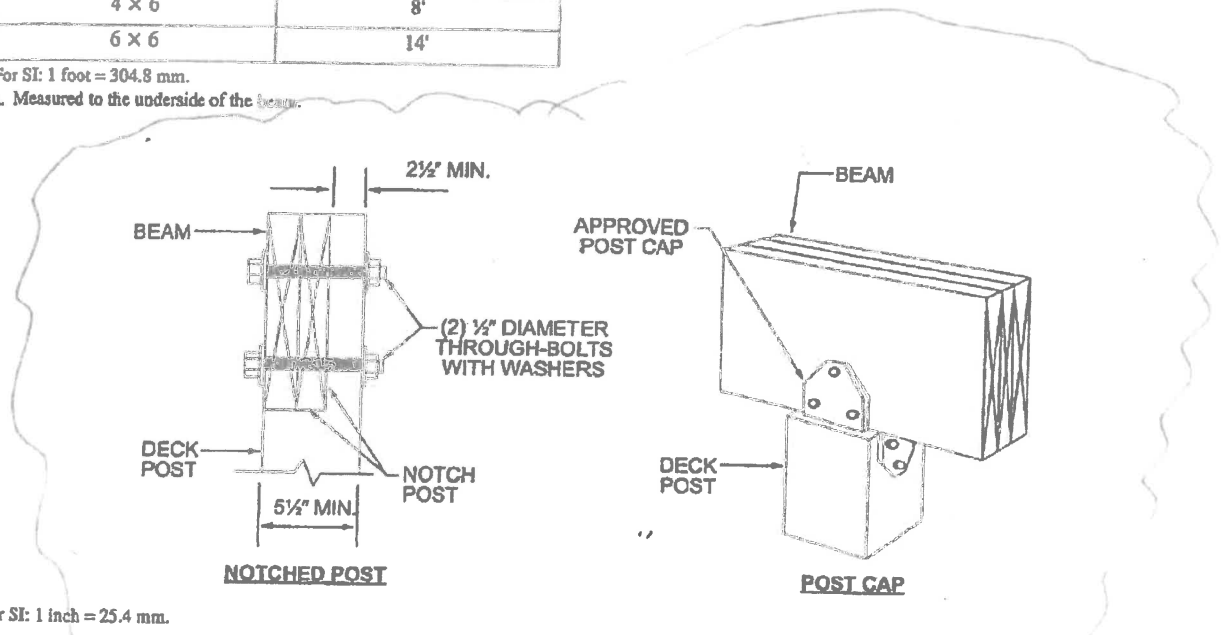
**TABLE R507.8  
DECK POST HEIGHT\***

DECK POST SIZE	MAXIMUM HEIGHT*
4 x 4	8'
4 x 6	8'
6 x 6	14'

For SI: 1 foot = 304.8 mm.

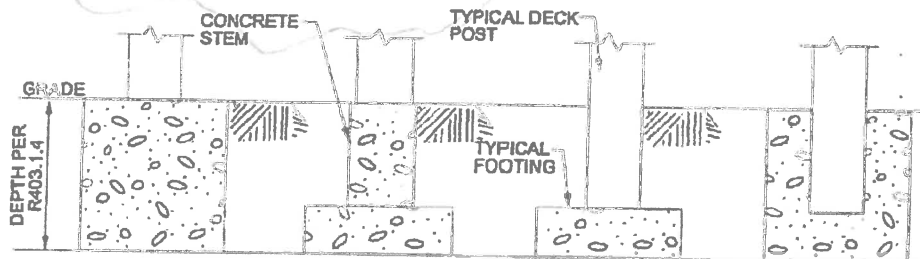
a. Measured to the underside of the beam.

**R507.8.1 Deck post to deck footing.** Posts shall bear on footings in accordance with Section R403 and Figure R507.8.1. Posts shall be restrained to prevent lateral displacement at the bottom support. Such lateral restraint shall be provided by manufactured connectors installed in accordance with Section R507 and the manufacturers' instructions or a minimum post embedment of 12 inches (305 mm) in surrounding soils or concrete piers.



For SI: 1 inch = 25.4 mm.

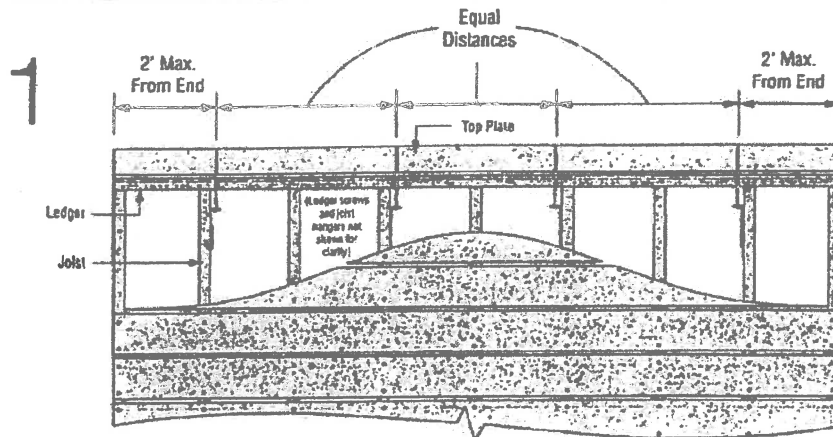
**FIGURE R507.7.1  
DECK BEAM TO DECK POST**



**FIGURE R507.8.1  
TYPICAL DECK POSTS TO DECK FOOTINGS**

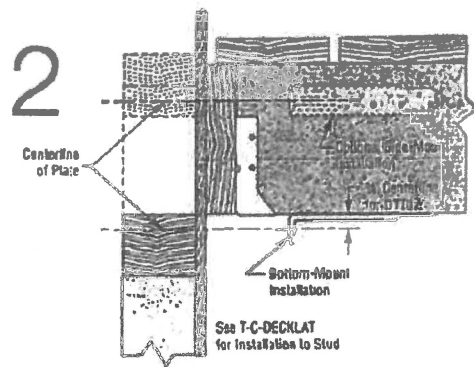


# DTT1Z Installation Instructions for Deck Applications



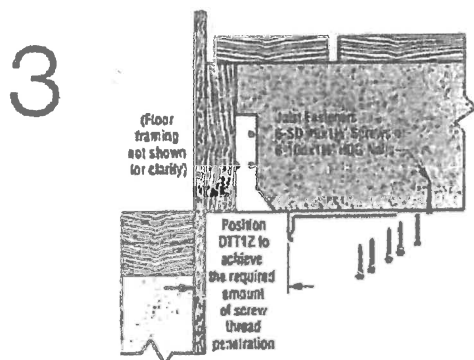
**Layout:**

Determine the horizontal locations of the installations. A minimum of four DTT1Z deck tension ties must be evenly distributed along the deck with one DTT1Z within two feet of each end of the ledger.



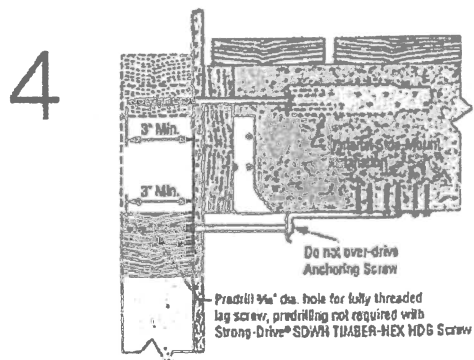
**Location:**

Determine the vertical locations of the installations. The DTT1Z tension tie must be fastened into the center of the top plate, studs or header (siding may need to be removed and exploratory holes may be needed). Ensure location is free of piping, wiring, ductwork, or other obstructions. In some cases, structural blocking fastened to the deck joists may be required to position the DTT1Z in the proper location. For additional information, refer to the technical bulletin T-C-DECKLAT at [www.strongtie.com](http://www.strongtie.com).



**Joist Fasteners:**

Position the DTT1Z on the deck joist in a location that provides a minimum of 3" of thread penetration of the anchoring screw into the top plate, studs or header. Using a low-torque wrench, fasten the DTT1Z to the deck joist with the required fasteners (6 - #9x1 1/2" Strong-Drive® SD Connector screws or 8-10dx1 1/2" HDG nails).



**Anchoring Screw:**

Install anchoring screw through the hole of the DTT1Z and into the center of the top plate, studs or header with a minimum of 3" of thread penetration and snug to the base of DTT1Z. Do not over-drive. Simpson Strong-Tie Strong-Drive® SDWH Timber-Hex HDG screws do not require predrilling or a washer. A 3/8" lag screw anchor can also be used but requires predrilled holes and a standard 3/8" washer.

Note: The details above are applicable where floor joists are parallel to deck joists per IRC figure R507.2.3 (2).