



RESIDENTIAL DECKS

Building Permits: A permit is **required** if the deck is **attached** to the dwelling, is **30" (or more) off the ground**, or is part of an **accessible route** (handicap ramps, etc.). A building permit application must be completed and submitted to the Inspection Department. It is necessary to allow a minimum of 5 to 10 business days for review of the plans. You will be contacted when the building permit is ready to be issued. Cost of the permit is based upon the size of the deck. With your permit, you will receive a copy of your **approved plan**. Please be aware that if you later decide to make changes to your plan, these **changes must also be approved**.

A **Permit Application Check List** outlining all application requirements is provided at the back of this handout and should be completed and submitted with your application. On the back of this checklist is the **Deck Diagram Profile**. This form must also be completed and submitted with your application.

Setbacks: Decks must be setback **5 feet** from the **side** lot line and **8 feet** from the **rear** lot line **for most single family homes**. However, some lots have more restrictive setbacks, easements and buffer yards. The setbacks for lakeshore and wetlands may vary. Check with the **City Planning Department at 952-895-4455**.

Loads: All decks shall be designed to support a **live load** (people, furniture, grills, etc.) of **40 lbs** per square foot, and a **dead load** (wood, decking, etc.) of **15 lbs** per square foot. R301.4, R301.5

Cantilevers/Overhanging Joists and Beams: Joists should **not overhang beams** by more than **2 feet**, and beams must **not overhang posts** by more than **1 foot** unless a special design is approved.

Cantilever Support: **DECKS CANNOT BE SUPPORTED BY CANTILEVERS** extending from the primary structure, or from another deck. Exceptions are granted only if **proof is provided** of the capability of the cantilevers to give such support.

Ledger Attachment: Different loads require different attachment. Please refer to the **Ledger Attachment Table** provided in this hand-out.

Flashing: All connections between deck and dwelling **shall be weatherproof**. Any cuts in the exterior finish **shall be flashed**. Flashing of the **ledger** at the point of connection to the **house** is especially **critical**. R703.8

Frost Footings: Footings are **required** for any deck **attached to a dwelling** or any other structure that has frost footings. The **minimum depth** to the base of the footings is **42 inches**. The **base** of a column footing **must be flared**, or extended, at least **4 inches** greater in diameter than the remainder of the column. **Cedar posts** must be protected **against direct contact** with the ground, concrete, or moisture. If the materials used for posts are not rated for ground contact, the concrete piers **must protrude** above grade a **minimum of 6 inches**.

Posts and Beams: Posts **must be centered** on the concrete pier over the footing and **securely fastened** to the concrete so as to resist both **uplift and lateral displacement**. R502.2 **Splices** in beams **must be centered** over posts. Beams made of 2x10 (or larger) materials require **3 - ½ inch diameter bolts** connecting the beam to the posts. 2x8 (or smaller material) beams require **2 - ½ inch diameter bolts**. Beams setting **atop posts** must be **fully anchored** with appropriate fasteners to resist uplift and lateral displacement. **Each joist must be connected to the beam** with the proper fastening criteria using either nails or "hurricane clips". **BEAM MEMBERS SHOULD BE NAILED TOGETHER ACCORDING TO CODE SPECIFICATIONS**. R602.3 **SPLIT BEAM ATTACHMENT TO POSTS IS NOT ACCEPTABLE AND WILL REQUIRE ADDITIONAL MEANS OF SUPPORT FOR THE BEAM**. 6-1/2 foot needs 6x6 posts.

Stairs: Minimum width is 36 inches. Maximum riser height is 7 ¾ inches. Minimum tread depth is 10 inches. Treads with a depth less than 11 inches must have compliant nosing. **Largest tread depth or riser height shall not exceed the smallest** by more than 3/8 inch across the run of the stairs. **Treads shall be level**, (a slope no greater than 2% is permitted). R311.5 **Lighting** capable of illuminating the treads and landings **is required**, shall be located in the immediate vicinity of the top landing, and may be activated from inside the dwelling. *Different width standards may apply in shoreland zones. R303.6

Handrails: Stairways having 4 or more risers shall have at least 1 handrail. The top of the handrail **shall not be less than 34 inches or more than 38 inches above the nosing of the treads**. Handrails shall be **continuous** for the full length of the stairs shall **protrude** from the adjoining surface by at least 1 ½ inches, but **no more than 4 ½ inches**, and the ends shall be returned or terminated into posts. **Handrails with a circular cross section** shall have an outside diameter of **not less than 1-1 ¼ inches or more than 2 inches**. Other handrails may be acceptable. See the specific code language to be sure your handrail does comply. R311.5.6 **NOTCHED POSTS WILL NOT BE ACCEPTED if balusters do not extend to rim.**

Guardrails: A guardrail is **required** on all decks, or any portion of a deck, more than 30 inches above grade or above a lower deck. Deck **guardrails must be 36 inches high**. Open guardrails on decks must have intermediate rails (balusters) or an ornamental pattern that a 4 inch sphere cannot pass through. **Guardrails on stairs** cannot have an **opening** between balusters that a 4 3/8 inch sphere can pass through. R312.1. **NOTCH POSTS WILL NOT BE ACCEPTED.**

Landings: There shall be a **landing at the top and bottom of stairs**. Landings must be as **wide as the stairs they serve**, have a **minimum length of 36 inches** in direction of travel, and have a **slope no steeper than 2%** (¼ inch of rise per 1 foot of run). *Different width standards may apply in shoreland zones. R311.5.4

Structural Details: Header beams and joists that frame into ledgers or beams shall be supported by approved framing anchors such as joist hangers. Attachment of these framing anchors must be completed according to the manufacturer's requirements; typically special nails are applied. To be used, these anchors **must be approved** for use with **treated wood** (ie. Simpson's ZMax, or USP's TZ – triple zinc).

NOTE - DECKS MUST BE POSITIVELY ANCHORED TO THE PRIMARY STRUCTURE R5022.2. **Please see drawings provided.**

Nails and Screws: Use only stainless steel, hot-dipped zinc-coated galvanized steel, silicon bronze, copper, or polymer-coated fasteners for attachment to pressure-preservative treated wood. Ask your materials supplier for an approved fastener. R319.3 **SCREWS CANNOT BE USED TO ATTACH JOIST HANGERS.**

Wood Required: All **exposed wood** must be **approved, treated** material. Grade **stamps and tags** must be **visible** to the inspector and **must meet the exposure criteria** to which they will be subjected (above ground, ground contact, etc.). R319 **Untreated or landscaping-type materials will be rejected.** Cedar and redwood are also approved; however **cedar cannot** be in **direct contact** with either **soil or concrete**. **OTHER DECK MATERIALS (composites, plastic, etc.) MUST BE LISTED BY AN APPROVED EVALUATION SERVICE AND APPROVED BY THE BUILDING OFFICIAL.** Ask your lumber supplier for help selecting the proper material, or the building department for a list of approved materials.

3 Season or Screen Porch Special Design Note: Some deck designs may not be appropriate for the placement of a screen porch or 3-season porch on the deck platform. Special design is needed; so plan ahead. **Setbacks for porches are not the same setbacks as for decks.**

INSPECTIONS: You must call for a scheduled **appointment time**. The **approved plan** must be **on site for all** inspections. **Typically 3 inspections are required:**

1. **Footings** - These will be **checked** for proper **diameter and depth, flare, a flat surface** at the base, and **no water** in the holes.
2. **Framing** – If your **deck surface** is **4 feet**, or closer, to the ground, you **must pass a framing inspection before the decking material** may be **applied** to the deck surface. Structural integrity and proper attachment of all connectors will be inspected.
3. **Final** – For decks that are 4 feet or greater off the ground, framing and final inspections may be completed together. A **final inspection must be completed** to be sure that the deck complies with the current Minnesota State Building Code.



2025 Application for Residential Building Permit

Date _____
Site Address _____
Owner: Name _____

FOR CITY USE ONLY

Permit No. _____

Address _____
City _____ St. _____
Zip _____ Tel. _____
Email: _____

You may apply online at

<https://burnsvillemn.portal.opengov.com/>

CONTRACTORS

Bldr: Name _____ Address _____
City _____ St. _____ Zip _____ Tel. _____
State License Number _____

Email: _____ (REQUIRED)

Lead Certificate # _____ (Include copy of Certification)

Plum: Name _____ Phone # _____
Htg: Name _____ Phone # _____
Elect: Name _____ Phone # _____
S & W Name _____ Phone # _____

Type of Const: New ☐ Addition ☐ Remodel ☐ Basement Finish ☐ Deck ☐
Screen / 3 season Porch ☐ Swimming Pool ☐ Retaining Wall ☐ Accessory Building ☐

**Plans/Drawings are required for any of the above projects. Plan reviews may take up to 2 weeks.
You will be notified when your project is approved, and instructed to pay online.**

Valuation of Construction \$ _____

DETAILED DESCRIPTION OF WORK:

SIGNATURE IS REQUIRED ON SECOND PAGE

Single Family ☐

Multi-Family/Twin Home ☐

Town Home ☐

Condo ☐

Manufactured Home ☐

Specify the square footage of the *project* only:

Dimensions: _____ x _____ = _____ sq. ft. Crawl Spaces

_____ x _____ = _____ sq. ft. Basement

_____ x _____ = _____ sq. ft. 1st Floor

_____ x _____ = _____ sq. ft. 2nd Floor

_____ x _____ = _____ sq. ft. 3rd Floor

TOTAL SQ. FT. _____

Garage / Shed: _____ x _____ ■■■► Attached _____ Detached _____ Tuck under _____

Check Appropriate Box if Project is exempt for **Lead Certification**:

- ☐ The applicant is not a Minnesota licensed residential Contractor, residential remodeler or roofer.
- ☐ The building was constructed after 1978.
- ☐ The structure is not residential housing or a child occupied facility.
- ☐ The renovation will not disrupt 6 sq. ft or more of painted surface per room for interior activities, or 20 sq. ft or more of painted surface for exterior activities and does not involve windows.
- ☐ Other (Please explain) _____

I hereby certify that the above information is correct and agree to comply with Burnsville Ordinances and State of Minnesota laws regulating building Construction.

Any construction for which a building permit has been issued for exterior work shall be completed and ready for occupancy according to the approved plans and specifications within one hundred eighty (180) days following issuance of said permit, unless within that time an extension is granted by the building official. (Ord. 1395, 8-16-2016

Signature _____

Owner ☐

Contractor ☐

100 Civic Center Parkway
Burnsville, MN 55337-3817

(952) 895-4444

Email: permits@burnsvillemn.gov

DECK PERMIT CHECKLIST

Please complete this form and submit a copy with your permit application.

Check-off and fill-in items appropriate to your deck.

Applicant's Name: _____

Contact Name: _____

Project address: _____

Phone: _____

Fax: _____

To obtain a permit, you need the following:

☐ 1. Site Plan *(example enclosed)*

☐ 2. Deck Plan*

☐ 3. Permit Application and Checklist *(This form)*

☐ 4. Deck Diagram Profile *(on back)*

☐ 5. If you are in a development with a homeowners' association, a letter from the Board of Directors either approving the deck, or stating the Board does not have to approve the deck.

**Incomplete plans will not be reviewed. Please allow 5-10 working days for review.*

Your Deck Plan must include all of the following:

☐ Footing depth: _____

☐ Dimensions of deck: length _____, width _____

☐ Footing size: _____ Column size: _____

☐ Size of beam/beams: _____

☐ Post spacing: _____

☐ Size of joists: _____

☐ Distance between deck and ground: _____

☐ Spacing of joists: _____

If your deck is 30 inches above the ground you should add:

☐ Height of guardrail: _____

☐ Size of openings in guardrail: 1. Distance between balusters: _____
2. Distance between decking and guardrail bottom: _____

If your deck has stairs you also need:

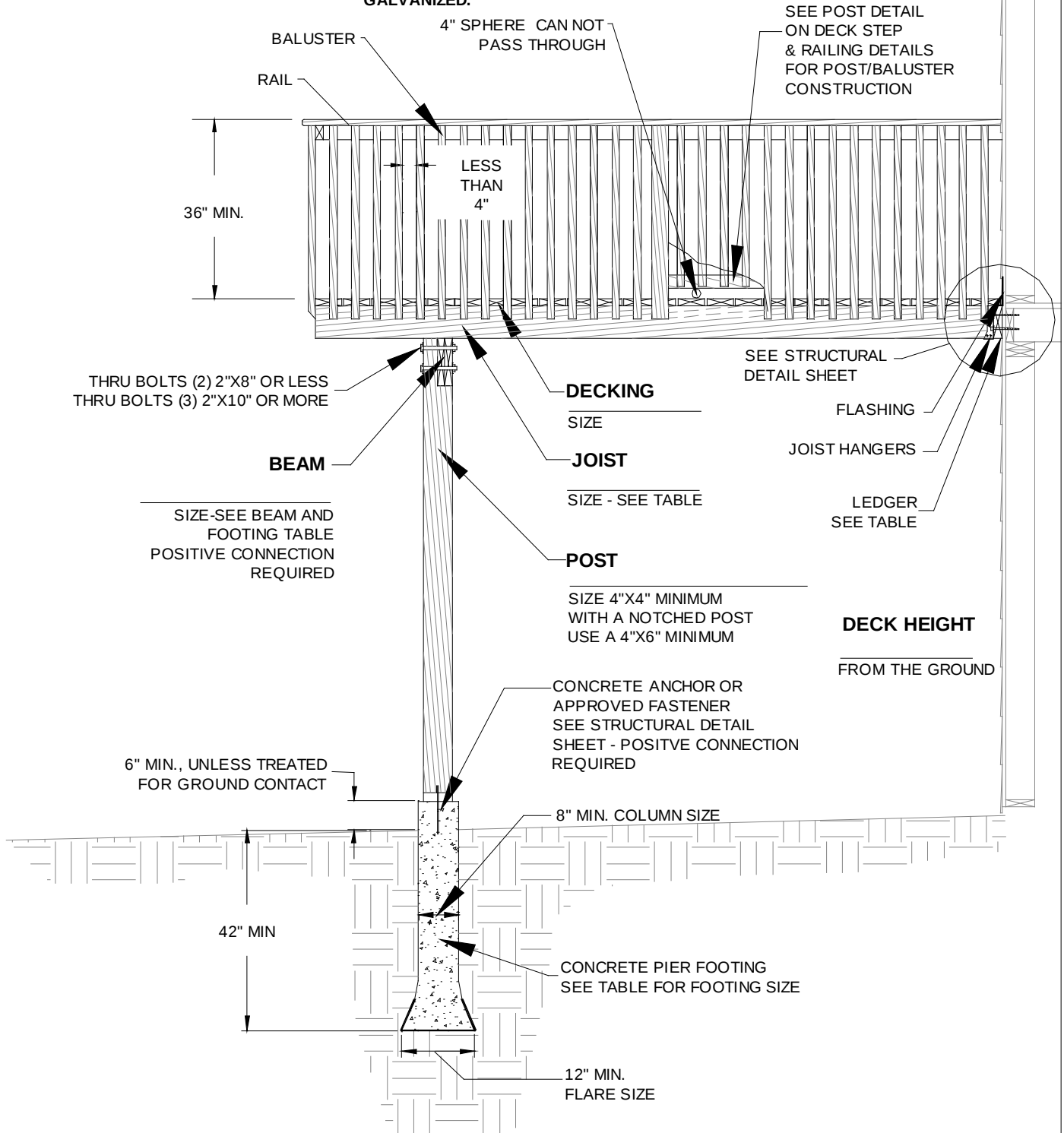
☐ Height of the stair riser: _____

☐ Depth of stair treads: _____

☐ Height of the handrail: _____

DECKS SUPPORTED BY ATTACHMENT TO AN EXTERIOR WALL 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.

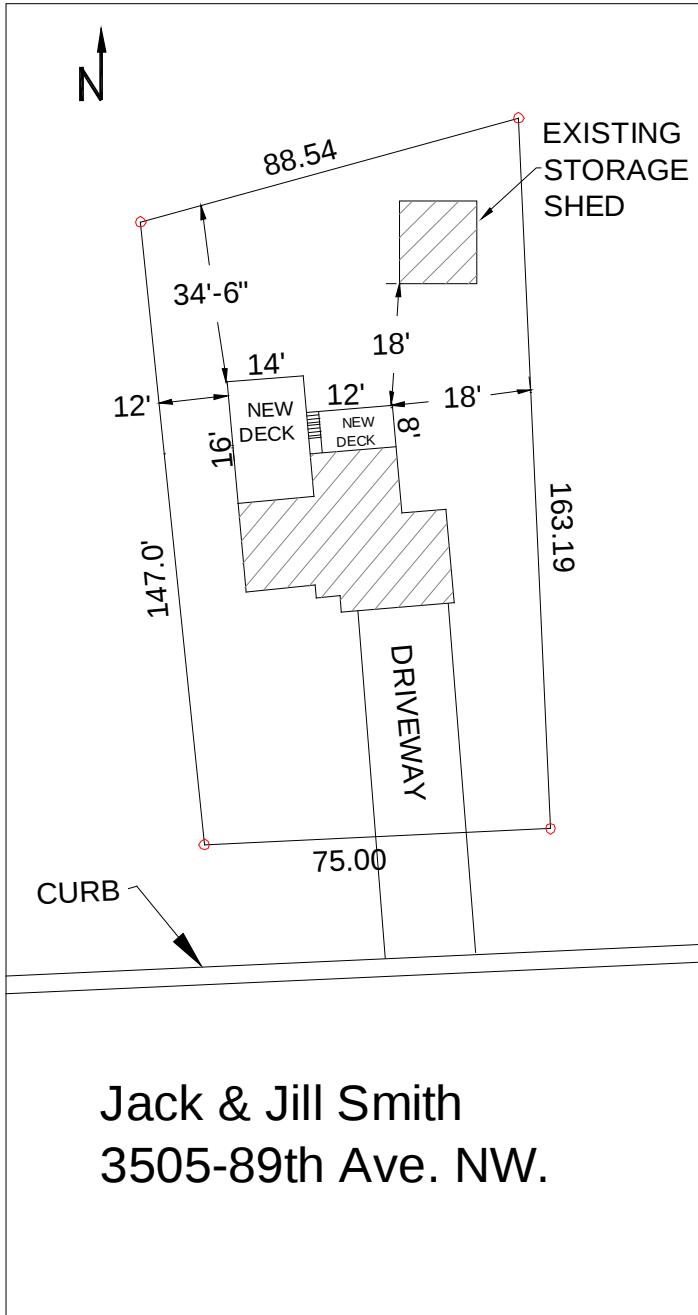
NOTE: FASTENERS, HARDWARE, ETC. IS REQUIRED TO BE BE ZMAX, TRIPPLE ZINC, STAINLESS, OR HOT DIPPED GALVANIZED.



EXAMPLE SITE PLAN

PROPOSED NEW DECK LOCATION

USE CERTIFICATE OF SURVEY
CONTACT BUILDING DEPARTMENT



SHOW ON PLAN

1. LOT LINES.
2. LOT DIMENSIONS.
3. OWNERS NAME.
4. ADDRESS.
5. DRIVEWAY.
6. DELINEATED WETLAND BOUNDARY/LAKE/STREAM/(ORDINARY HIGH WATER MARK)
7. EASEMENTS.
8. POWER SUPPLY.
9. DIMENSIONS TO PROPOSED PROJECT AND ALL OTHER STRUCTURES.
10. SIZE OF NEW STRUCTURE.
11. DIMENSIONS TO LOT LINE & RIGHT OF WAY
12. DIMENSIONS TO OTHER BLDGS.
13. INCLUDE YARD SETBACKS AND EASEMENTS ON SIDE, FRONT, AND BACK YARDS.
14. LABEL ALL ADJACENT STREETS.
15. INCLUDE SCALE.

NOTE:

IF SITE PLAN IS NOT COMPLETE,
THE PROCESS FOR REVIEW OF
APPLICATION WILL BE HELD UP.

PROVIDE 2 COPIES OF A SITE
PLAN.

GOPHER STATE 1 CALL
FOR UTILITY LOCATIONS
651-454-0002 OR 811

INSPECTOR'S GUIDE TO LEDGER ATTACHMENT

NUMBER OF LAG SCREWS FOR DECK LEDGER (1)								
CLEAR SPAN	3/8" LAG		½" LAG		LedgerLok (A)		Simpson Strong-tie ¼" SDS (B)	
	16" O.C.	24" O.C.	16" O.C.	24" O.C.	16" O.C.	24" O.C.	16" O.C.	24" O.C.
6 FEET	2	3	2	2	1	2	1	2
8 FEET	3	4*	2	3	2	2	2	2
10 FEET	3	5*	2	3	2	3	2	3
12 FEET	4*	5*	3	4*	2	3	2	3
14 FEET	4*	6*	3	4*	2	3	3	4

- (1) Southern Yellow Pine ledger and conventionally wood framed structure with sawn joists or wood trusses.
- (2) 40 pounds per square foot live load and 15 pounds per square foot dead load.
- (A) FastenMaster® LedgerLok™ Ledger Board Fastener, see ICC, EST-1078. This evaluation report does not address fastener corrosion when the fastener is installed in chemically treated wood.
<http://www.olyfast.com/pdf/LedgerLok%20Ad%20HIE.pdf>.
- (B) Simpson Strong-drive S-series Wood Screw, see ICC ER 5268. The double-barrier coating finish provides corrosion resistance superior to hot-dip galvanization, see their web site. <http://www.storntie.com/products/connectors/screws.html>.

* Excessive Application of screws into the ledger board may cause deck/ledger failure, other fasteners listed recommended. In a board 2X10 or less, 4 screws may be a problem.

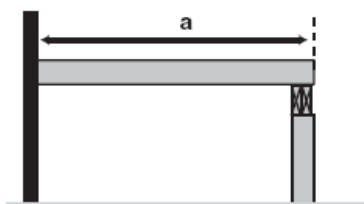
Joist span

(Design Load = 40#LL + 10#DL, Deflection= L/360)

	Ponderosa Pine or Red Pine #2			Southern Yellow Pine #2			Western Cedar #2		
	12" o.c.	16" o.c.	24" o.c.	12" o.c.	16" o.c.	24" o.c.	12" o.c.	16" o.c.	24" o.c.
2x6	8' - 9"	8' - 0"	7' - 0"	10' - 4"	9' - 4"	7' - 9"	8' - 9"	8' - 0"	7' - 0"
2x8	11' - 6"	10' - 6"	8' - 9"	13' - 6"	12' - 4"	10' - 0"	11' - 5"	10' - 6"	9' - 2"
2x10	14' - 9"	13' - 3"	10' - 10"	17' - 4"	15' - 9"	13' - 0"	14' - 9"	13' - 5"	11' - 3"
2x12	17' - 9"	15' - 4"	12' - 6"	21' - 0"	18' - 8"	15' - 3"	18' - 0"	16' - 0"	13' - 0"

Sample calculations for using joist span, beam size and footing size tables

Case I solution:

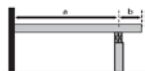


Refer to tables for joist, beam and footing size requirements.

Example: a = 12 feet; Post spacing = 8 feet

Use the **joist span** table to find the acceptable joist sizes for a 12 foot span, 2x8s at 12 inches O.C., 2x10s at 16 inches O.C. or 2x12s at 24 inches O.C. Use the **Beam and footing sizes** table and find the 8 foot post spacing column. With a 12 foot deck span, the beam may be either two 2x8s or two 2x10s, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 12 inches, 10 inches or 9 inches for the corner post and 17 inches, 14 inches or 12 inches for all intermediate posts.

Case II solution:

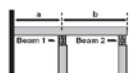


Use "a" to determine joist size and "a" + "2b" to determine beam and footing sizes. The length of "b" is restricted by both the length of "a" and the size of the joists.

Example: a = 8 feet, b = 2 feet, Post spacing = 10 feet

Refer to the **joist span** table. For an 8 foot joist span, either 2x8s at 24 inches O.C. or 2x6s at 16 inches O.C. are acceptable. For sizing the beam, use a joist length of 12 feet (8 feet + 4 feet) and a post spacing of 10 feet. The **beam and footing sizes** table indicates that the beam may be either two 2x10s or two 2x12s, depending on wood used. Depending on the type of soil, the footing diameter at the base must be a minimum of 15 inches, 12 inches or 11 inches for the corner post and 20 inches, 17 inches or 15 inches for all intermediate posts. Note that because of the 2 foot cantilever all footing sizes were increased by 1 inch as required by footnote 2 at the end of the table.

Case III solution:



Example: a = 6 feet, b = 7 feet, Post spacing = 9 feet

Joist size is determined by using the longest span joist (7 feet). The **joist span** table indicates that 2x6s at 24" O.C. would be adequate for this span. For Beam 1 and footings, use a joist length of 13 feet (6 feet + 7 feet) and a post spacing of 9 feet. The **beam and footing sizes** table indicates that the beam may be two 2x10s or two 2x12s, depending on the wood used. Depending on the type of soil, the footing diameters for Beam 1 posts shall be 13 inches, 11 inches or 9 inches for the corner (outside) post and 19 inches, 15 inches or 13 inches for all intermediate posts. For Beam 2 and footings use a joist length of 7 feet and post spacing of 9 feet. The beam may be two 2x8s or two 2x10s, depending on wood used. Depending on the type of soil, the footing diameters for Beam 2 shall be 10 inches, 8 inches or 7 inches for the corner posts, and 14 inches, 11 inches or 10 inches for all intermediate posts.

The following, or equivalent, approved fastener must be used.

New DTT1Z Deck Tension Tie Provides Alternate Approach to Attaching Decks to Homes

The new DTT1Z deck tension tie provides a less invasive approach for attaching a new deck to a home or retrofitting an existing deck to current code standards. This tension tie addresses a 2015 International Residential Code provision (section R507.2.4) that now allows four 750 lb. lateral connectors to be fastened to framing in the house with a lag screw. This provision is an alternative to using two 1,500 lb. lateral connections from the deck to the floor joists within the house.

The DTT1Z is specifically designed to comply with this new code detail that permits the lateral connection from the deck joists to be made to top plates, studs, or headers within the supporting structure. This eliminates the need to access the floor joists inside the house.

The DTT1Z fastens to the narrow or wide face of a single 2x with Strong-Drive® SD Connector screws. The new Strong-Drive® SDWH Timber-Hex HDG screw with an integral washer attaches the tension tie to the supporting structure.

Additional Features

- ZMAX® coating offers additional corrosion protection for exterior and preservative-treated wood applications
- DTT1Z offered as an individual part or as part of a retail pack with Strong-Drive® SD Connector Screws and SDWH Timber-Hex HDG Screws

Additional Fastening Options

To Joist:

- #9x1½" Strong-Drive® SD Connector Screw
- 10dx1½" HDG nail

To Structure:

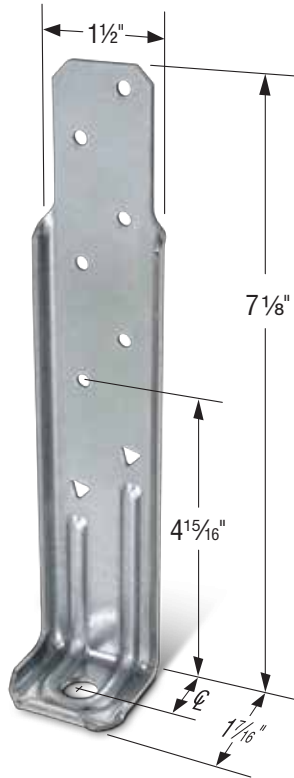
- Strong-Drive® SDWH Timber-Hex HDG Screw (available in 4"-12" lengths)
- ¾" machine bolt, anchor bolt or lag screw (washer required)
- ¾" Titen® HD Heavy Duty screw anchor (interior dry holdown applications only, see page 4)

Model No.	℄	Anchor Dia. or Type	Fasteners	Allowable Tension Loads (lbs.) (160)				Deflection at Allowable Load (in.)
				Dry		Wet		
				DF/SP	SPF/HF	DF/SP	SPF/HF	
DTT1Z	¾"	⅜" ⁵ or SDWHG ⁶	6-SD #9x1½"	840	840	840	755	0.170
			6-10dx1½"	910	640 ⁴	795	640 ⁴	0.167
			8-10dx1½"	910	850	910	850	0.167

1. Allowable loads have been increased 60% for wind or earthquake loading with no further increase allowed.
2. Dry values are applicable to installations into wood with a moisture content that does not exceed 19%.
3. Wet values are applicable to installations into wood with a moisture content greater than 19% at time of installation or in service. Values include a NDS wet service factor for the fasteners.
4. DTT1Z installations with allowable loads of less than 750 lbs. do not satisfy the 2015 IRC requirements for deck-to-house lateral load connections.
5. A standard ⅜" cut washer is required when using a ¾" machine bolt, anchor bolt or lag screw.
6. The Strong-Drive® SDWH Timber-Hex HDG screw with a min. of 3" of thread penetration into dry lumber has an allowable withdrawal load (160) of 1380 lbs. into SP, 1225 lbs. into DF and 1020 lbs. into SPF/HF.
7. Load values are valid if the product is flush with the end of the framing member or installed away from the end.
8. FASTENERS: SD #9x1½" (model SD9112) = 0.131" dia. x 1½" long, 10dx1½" = 0.148" dia. x 1½" long.

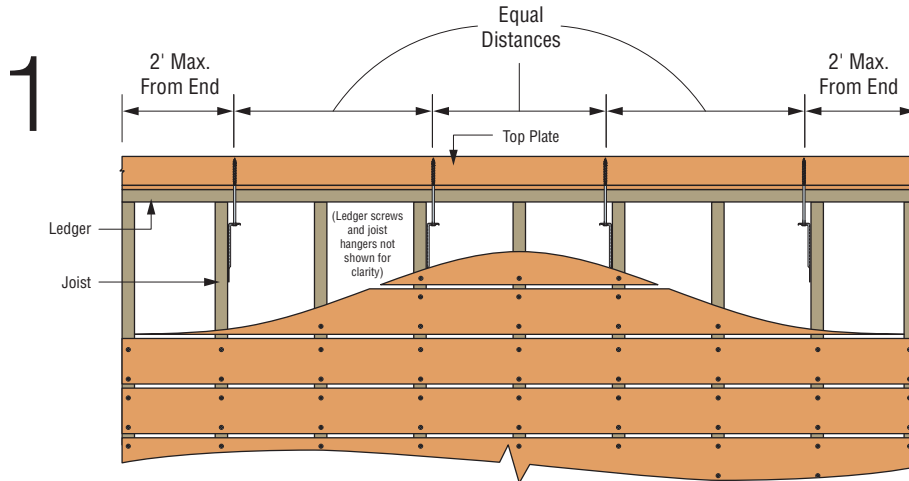


The DTT1Z deck tension tie with the Strong Drive® SDWH TIMBER-HEX HDG screw accommodates most installation conditions regardless of the siding type or ledger thickness.



DTT1Z Deck Tension Tie
U.S. Patent Pending

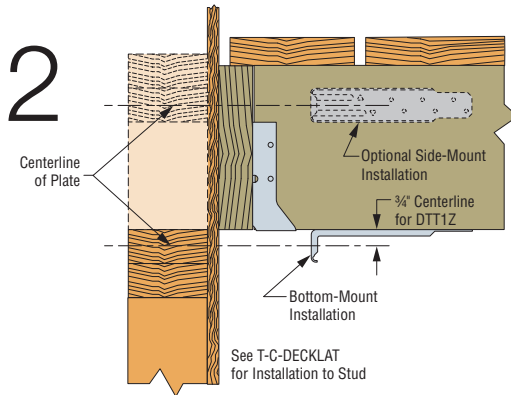
DTT1Z Installation Instructions for Deck Applications



Layout:

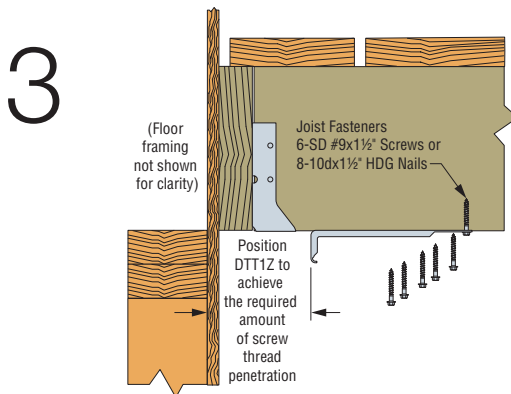
Determine the horizontal locations of the installations. A minimum of four DTT1Z deck tension ties must be evenly distributed along the deck with one DTT1Z within two feet of each end of the ledger.

***One (1) lateral hold-down every 12' ft required; minimum of two (2) per deck.**



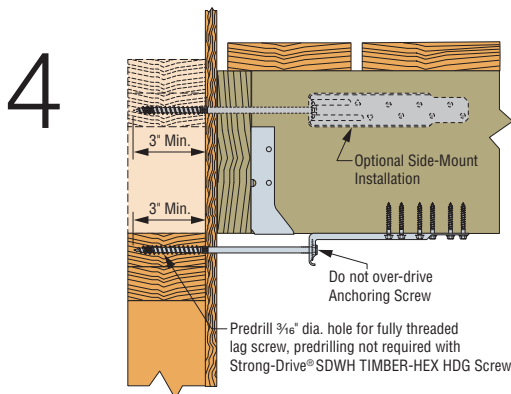
Location:

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.



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.

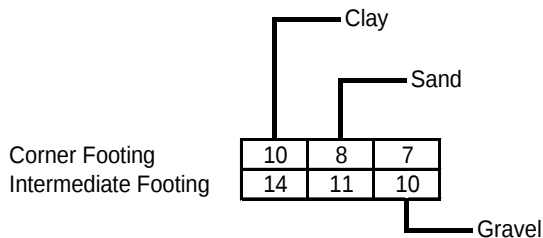
Note: The details above are applicable where floor joists are parallel to deck joists per IRC figure R507.2.3 (2).

Beam and Footing Sizes

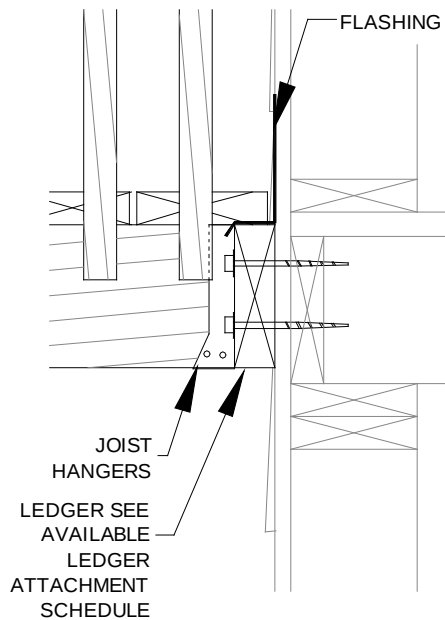
Based on No. 2 or Better Ponderosa Pine and Southern Pine
(Treated for weather and/or ground exposure)

		Post Spacing										
		4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'
Joist Length	6'	Southern Pine Beam	1-2x6	1-2x6	1-2x6	2-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10
		Ponderosa Pine Beam	1-2x6	1-2x6	1-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10
		Corner Footing	6 5 4	7 6 5	7 6 5	8 7 6	9 7 6	9 7 6	10 8 7	10 8 7	10 9 7	11 9 8
		Intermediate Footing	9 8 7	10 8 7	10 9 7	11 9 8	12 10 9	13 10 9	14 11 10	14 12 10	15 12 10	15 13 11
	7'	Southern Pine Beam	1-2x6	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12
		Ponderosa Pine Beam	1-2x6	1-2x6	1-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10
		Corner Footing	7 5 5	7 6 5	8 7 6	9 7 6	9 8 7	10 8 7	10 8 7	11 9 8	11 9 8	12 10 9
		Intermediate Footing	9 8 7	10 8 7	11 9 8	12 10 9	13 11 9	14 11 10	15 12 10	15 13 11	16 13 11	17 14 12
	8'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12
		Ponderosa Pine Beam	1-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	3-2x10	3-2x12
		Corner Footing	7 6 5	8 6 6	9 7 6	9 8 7	10 8 7	10 8 7	11 9 8	11 9 8	12 10 9	13 10 9
		Intermediate Footing	10 8 7	11 9 8	12 10 9	13 11 9	14 11 10	15 12 10	16 13 11	16 13 12	17 14 12	18 15 13
	9'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12
		Ponderosa Pine Beam	1-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	3-2x10	3-2x10	3-2x12
		Corner Footing	7 6 5	8 7 6	9 7 6	10 8 7	10 9 7	11 9 8	12 10 8	12 10 9	13 10 9	13 11 9
		Intermediate Footing	10 9 7	12 10 8	13 10 9	14 11 10	15 12 10	16 13 11	17 14 12	17 14 12	18 15 13	19 15 13
	10'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10
		Ponderosa Pine Beam	1-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x12	Eng Bm
		Corner Footing	8 6 6	9 7 6	10 8 7	10 8 7	11 9 8	12 10 8	12 10 8	13 11 9	14 11 10	15 12 10
		Intermediate Footing	11 9 8	12 10 9	14 11 10	15 12 10	16 13 11	17 14 12	17 14 12	18 15 13	19 16 14	20 16 14
	11'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10
		Ponderosa Pine Beam	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	Eng Bm
		Corner Footing	8 7 6	9 7 6	10 8 7	11 9 8	12 9 8	12 10 9	13 11 9	14 11 10	14 12 10	15 12 10
		Intermediate Footing	12 9 8	13 11 9	14 12 10	15 12 10	16 13 11	17 14 12	17 14 12	18 15 13	19 16 14	20 16 14
	12'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12
		Ponderosa Pine Beam	2-2x6	2-2x6	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x12	3-2x12	Eng Bm
		Corner Footing	9 7 6	10 8 7	10 9 7	11 9 8	12 10 9	13 10 9	14 11 10	14 12 10	15 12 10	15 13 11
		Intermediate Footing	12 10 9	14 11 10	15 12 10	16 13 11	17 14 12	18 15 13	19 16 14	20 16 14	21 17 15	22 18 15
	13'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12
		Ponderosa Pine Beam	2-2x6	2-2x6	2-2x8	2-2x10	2-2x12	2-2x12	2-2x12	3-2x12	3-2x12	Eng Bm
		Corner Footing	9 7 6	10 8 7	11 9 8	12 10 8	13 10 9	13 11 9	14 12 10	15 12 10	15 13 11	16 13 11
		Intermediate Footing	13 10 9	14 12 10	15 13 11	17 14 12	18 15 13	19 15 13	20 16 14	21 17 15	22 18 15	23 19 16
	14'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12
		Ponderosa Pine Beam	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12	Eng Bm	Eng Bm
		Corner Footing	9 8 7	10 8 7	11 9 8	12 10 9	13 11 9	14 11 10	15 12 10	15 13 11	16 13 11	17 14 12
		Intermediate Footing	13 11 9	15 12 10	16 13 11	17 14 12	18 15 13	20 16 14	21 17 15	22 18 15	23 18 16	24 19 17
	15'	Southern Pine Beam	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	3-2x12
		Ponderosa Pine Beam	2-2x6	2-2x8	2-2x8	2-2x10	3-2x10	3-2x10	3-2x12	3-2x12	Eng Bm	Eng Bm
		Corner Footing	10 8 7	11 9 8	12 10 8	13 10 9	14 11 10	14 12 10	15 12 11	16 13 11	17 14 12	17 14 12
		Intermediate Footing	14 11 10	15 12 11	17 14 12	18 15 13	19 16 14	20 17 14	21 17 15	22 18 16	23 19 17	24 20 17
	16'	Southern Pine Beam	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	3-2x12
		Ponderosa Pine Beam	2-2x6	2-2x8	2-2x10	2-2x10	3-2x10	3-2x10	3-2x12	3-2x12	Eng Bm	Eng Bm
		Corner Footing	10 8 7	11 9 8	12 10 9	13 11 9	14 11 10	15 12 10	16 13 11	16 13 12	17 14 12	18 15 13
		Intermediate Footing	14 11 10	16 13 11	17 14 12	18 15 13	20 16 14	21 17 15	22 18 16	23 19 16	24 20 17	25 21 18

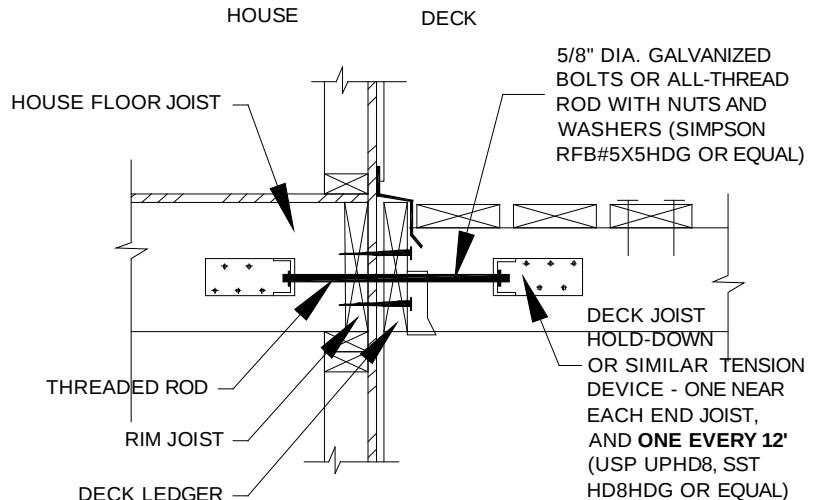
- Notes: 1. Joist length is total length of joist, including any cantilevers.
2. When joist extends (cantilevers) beyond support beam by 18 inches or more, add 1 inch to footing dimensions shown.
3. Requirements for future 3-season porches or screen porches:
a. Increase corner footing size shown by 90%.
b. Increase center footing size shown by 55%.
c. Locate all footings at extremities of deck (no cantilevers.)
d. Beam sizes indicated need not be altered.
4. All footing sizes above are base diameters (in inches) and are listed for THREE SOIL TYPES:



STRUCTURAL DETAILS

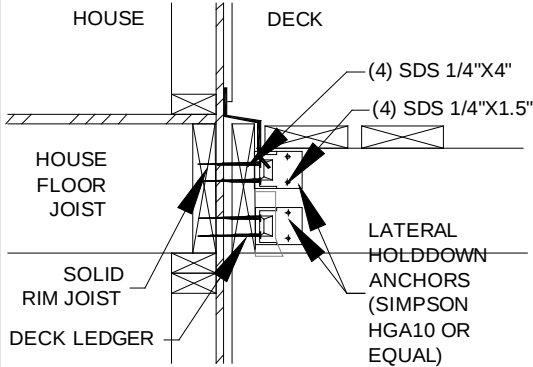


LEDGER DETAIL

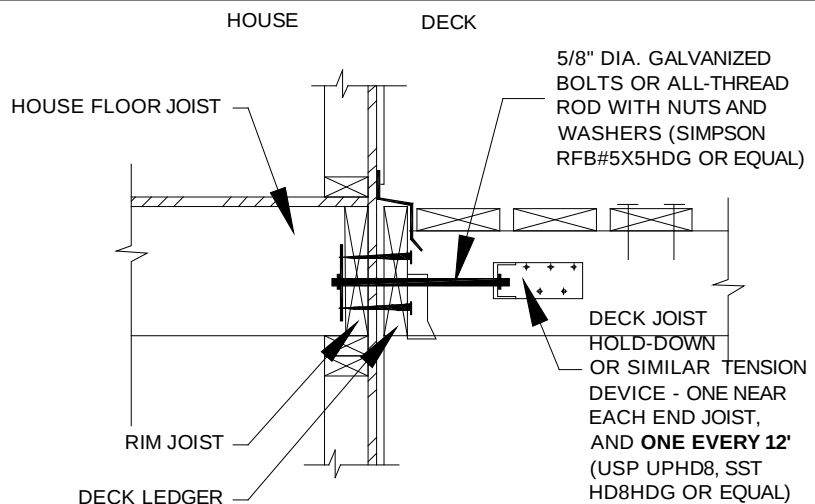
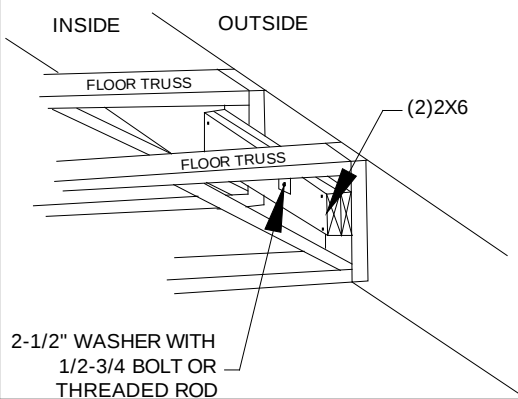


DECK ATTACHMENT FOR LATERAL LOADS/HOLDDOWNS ON INTERIOR JOIST

DECK ATTACHMENT FOR OUTSIDE HOUSE



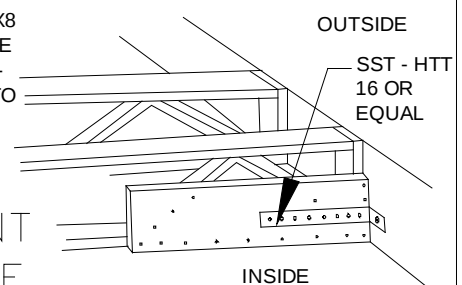
DECK ATTACHMENT FOR INSIDE HOUSE



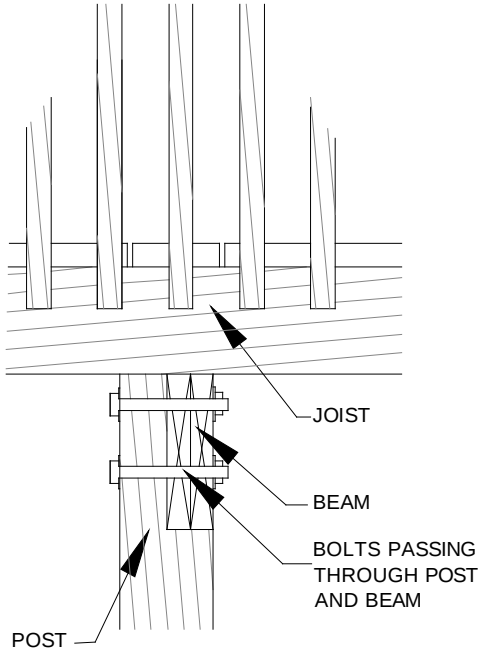
DECK ATTACHMENT FOR LATERAL LOADS/HOLDDOWNS BETWEEN INTERIOR JOISTS

WITH FLOOR TRUSSES, ATTACHE 2X8 (OR LARGER) MATERIAL TO THE SIDE OF THE TRUSS. USE A MINIMUM OF - (12) 16d NAILS. ATTACH HOLDDOWN TO 2X MATERIAL.

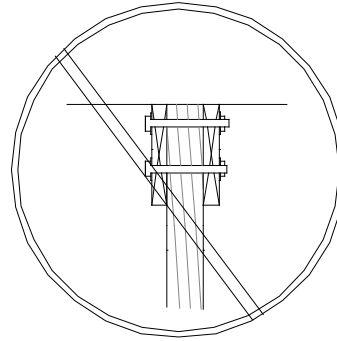
DECK ATTACHMENT FOR INSIDE HOUSE



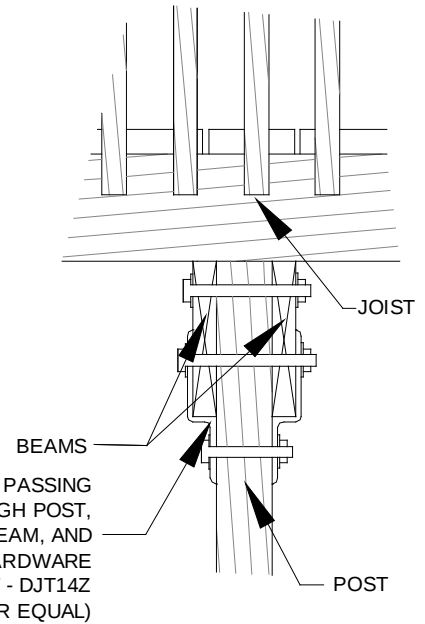
STRUCTURAL DETAILS



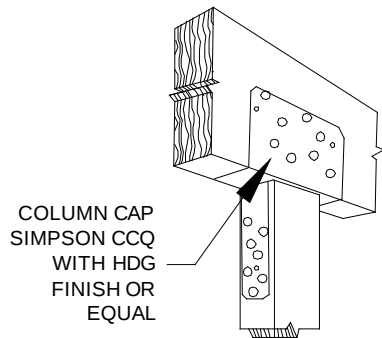
BEAM/POST CONNECTION
USING NOTCHED POST



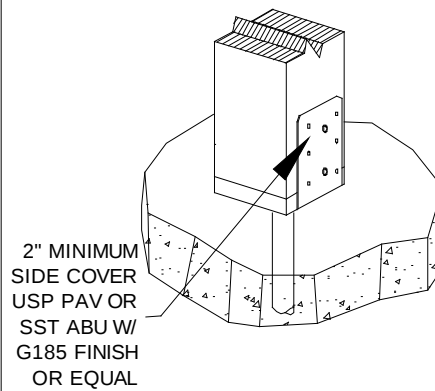
SPLIT BEAM CONNECTION
WITHOUT HARDWARE
NOT ACCEPTABLE



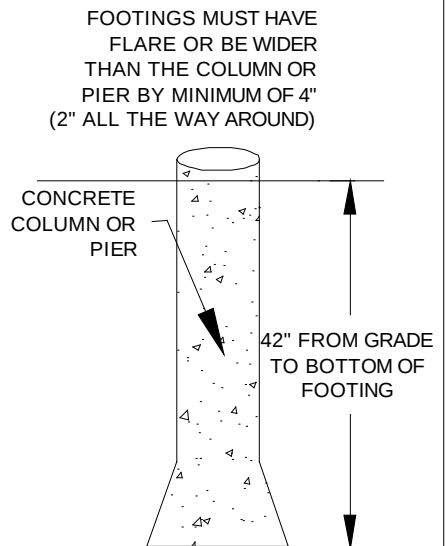
SPLIT BEAM CONNECTION
USING HARDWARE/BRACKETS



BEAM/POST
CONNECTION USING
COLUMN CAP

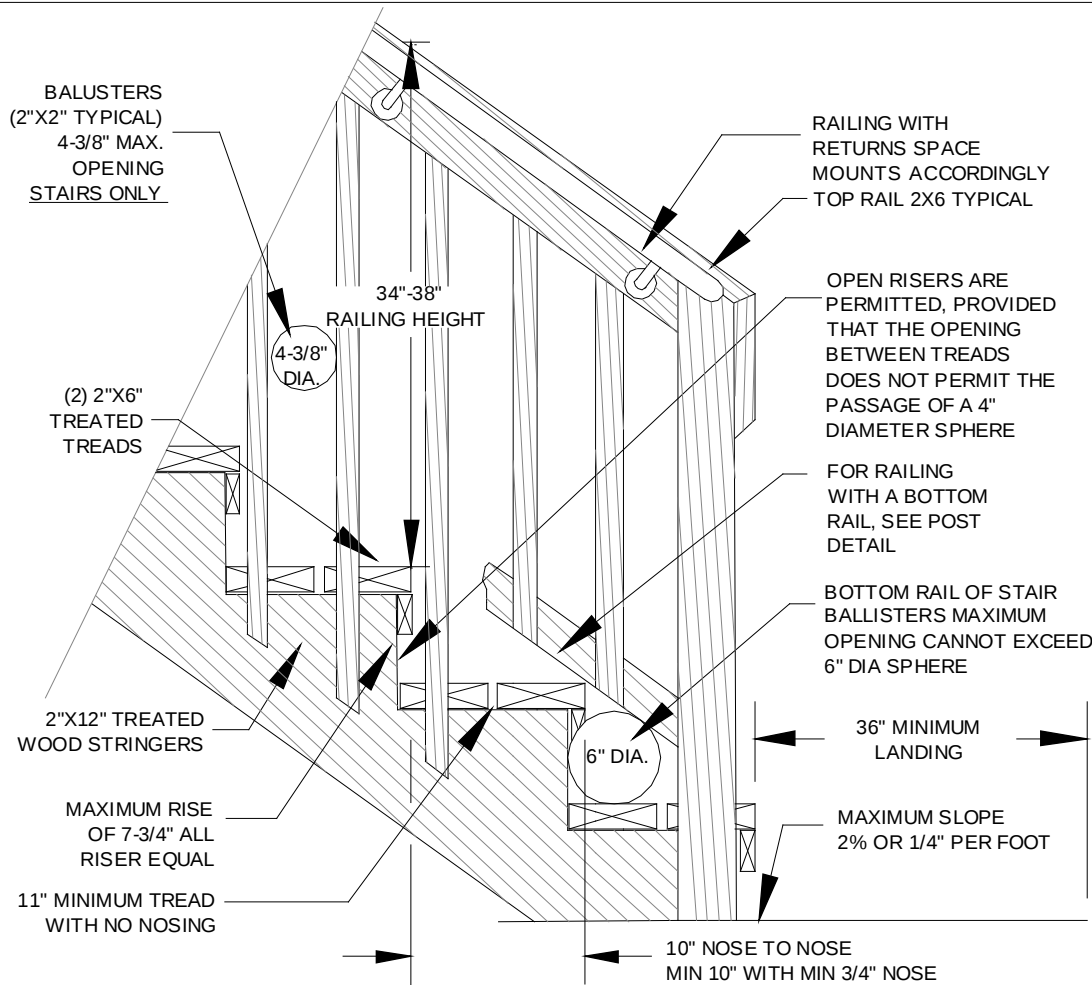


POST ANCHOR
USP-PAU
OR EQUAL



CONCRETE FOOTING
WITH FLARE

DECK STEP & RAILING DETAILS



- NOTES:
1. THE GREATEST RISER HEIGHT WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8". THE GREATEST TREAD DEPTH WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8".
 2. ALL REQUIRED HANDRAILS SHALL BE PROVIDED EQUIVALENT GRASPABILITY.

NOTE: THIS DETAIL ONLY APPLIES IF THERE IS A BOTTOM RAIL AND THE BALUSTERS DO NOT CONTINUE TO THE BOTTOM RIM PLATE

