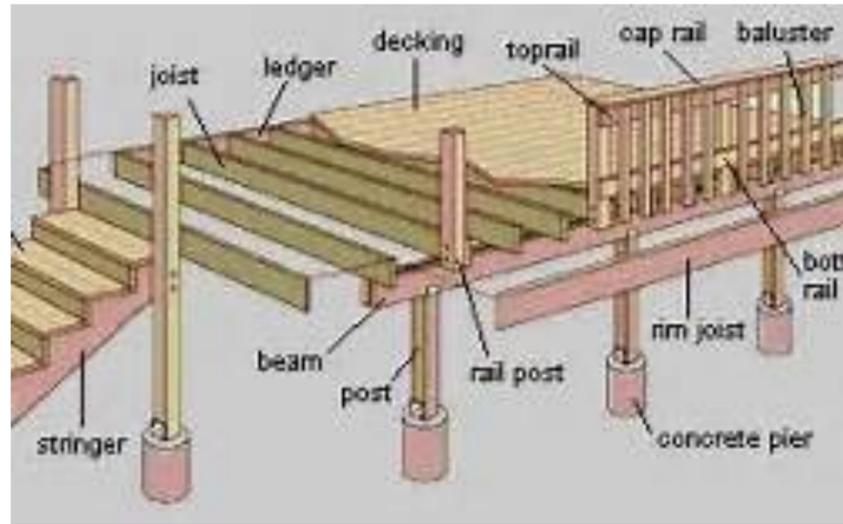


Deck Terminology



Complete this form

1. Deck Size: _____ X _____
2. Footing Size: _____
3. Post Size: _____ X _____
4. Post Spacing: _____
5. Beam Size: _____ X _____ X _____
6. Joist Size: _____ X _____
7. Joist Spacing: _____ (12" 16" 24")
8. Joist Span: _____
9. Decking Size: _____ X _____
10. Material Type: _____

Floor joist and stair stringers spaced at twenty-four (24) inches on center requires a minimum (2) inch nominal thickness decking. Floor joist or stair stringers spaced sixteen (16) inches o/c may use 5/4 – inch minimum decking. 5/4- inch decking when installed diagonally shall be fastened to joist that are 12" on center or to manufactures specifications

DECK BUILDING AND DESIGN



**All decks, Stairs and Platforms require a building permit
Free standing, attached and detached with or without footings
Require a building permit from the City of Shakopee, Building
Department.**

SUBMITTALS REQUIRED FOR PERMIT

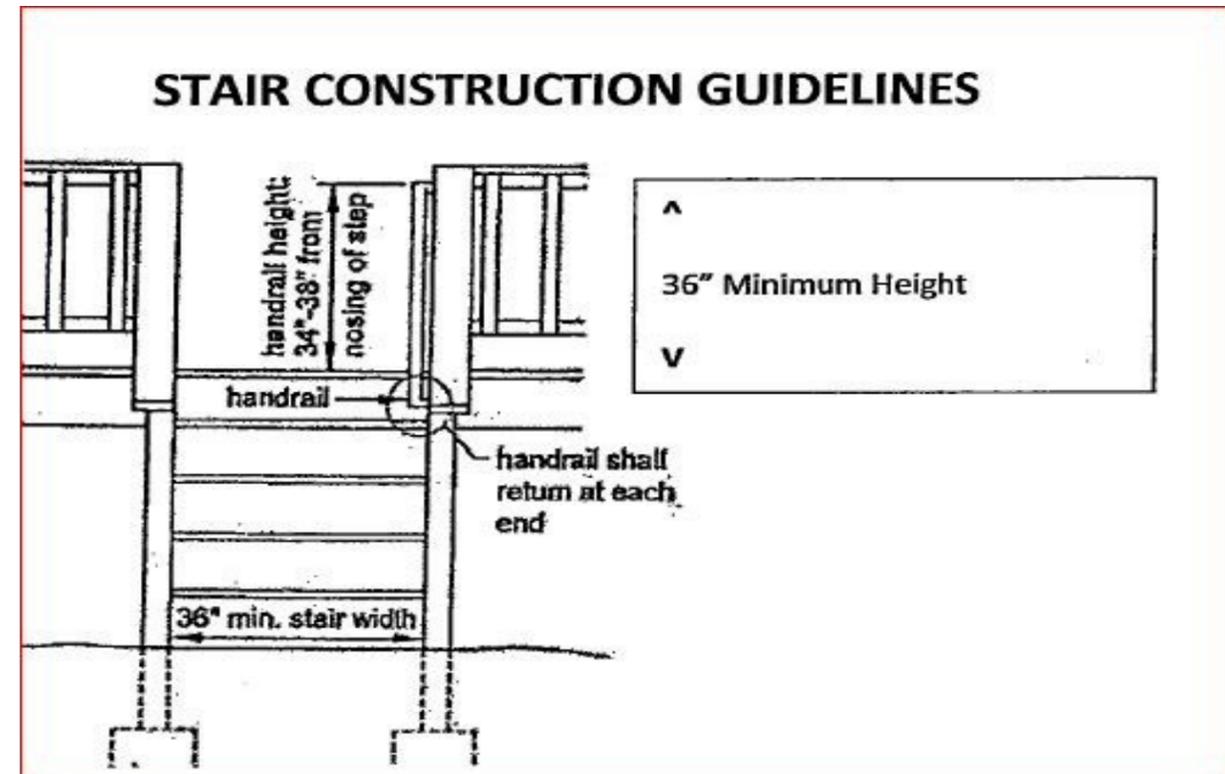
1. Signed completed Building Permit application form.
2. Two (2) copies of a Certificate of Survey, drawn to scale indicating the lot dimensions, The location and ground coverage area of existing structure(s), the location and area of the proposed structure. Indicate the setback from property lines. A Certificate of Survey for the property may be on file at City hall.
3. Two (2) Copies of plans showing proposed designs and materials. **Plans shall include the following information:**
 - A. Floor plan indicating the following;
 - a. Proposed deck size, with location of stairs and size
 - b. Size and spacing of floor joists and beams,
 - c. Size, species and direction (perpendicular/diagonal) of decking material,
 - d. Size, location and spacing of posts,
 - e. Species and grade of lumber to be used.
 - B. Elevations indicating the following;
 - a. Height of structure from established grade,
 - b. Diameter and depth of footings,
 - c. Guard rail height (if required)
 - d. Type and spacing of intermediate rails,
 - e. Stairs (location and size)

GENERAL BUILDING CODE REQUIREMENTS

1. Footings shall be designed and constructed to below frost depth (42" minimum Ground cover required from bottom of footing to grade or side slope).
2. Approved wood of natural resistance to decay or treated wood (min .40 penetration) may be used. Other man made products shall be listed and have an listed and approved evaluation report.
3. Guardrails shall be provided to a height thirty-six (36) inches above the finished deck boards for decks more than thirty (30) inches above grade. Guards are also required on open sides of stair ways, raised floor areas, balconies and porches and shall intermediate rails or ornamental closures that do not allow passage of a 4 inch diameter sphere. Open sides of stairs with a total rise of 30 inches above the floor or grade below shall be protected by guardrails not less than 34 inches in height, measured from the nosing of the treads vertically and the hand rail shall be positioned between 34" to the bottom and 38" to the top of the handrail.
4. Post spacing of railings shall be no greater than six feet apart, using full 4x4 posts extending to the bottom of the rim board. Two 1/2 inch diameter carriage bolts with 1" washers on both Sides are required per post. Additional backing, support and fastening is required at post Locations to prevent the rim board from pulling away from the attached joists.

NOTCHING OF GUARD POSTS PROHIBITED When only pickets are used for the guardrail They shall extend to the bottom of the rim and be fastened with at least two non-corrosive # 12 Penny nails or screws that extend through the total mass of the picket and rim board.

5. Open risers on stairs are permitted, provided that the openings between treads do not exceed 4 inches. The opening is not limited for stairs with a total rise of 30 inches or less.
6. The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway is limited in size such that a six inch sphere cannot pass through.
7. Floor joist and stair stringers spaced at 24 inches on center require a minimum 2 inch nominal thickness decking. Floor joist or stair stringers spaced 16 inches on center may use 5/4-inch minimum decking. 5/4-inch when installed diagonally shall be fastened to joist that are 12" On center.
8. Decks shall be capable of supporting a 40 pound per square foot live load and a 10 pound per square foot dead load for a total load or 50 pounds per square foot.
9. Non-corrosive metal flashing is required at deck ledger attached to house. Seal bottom and sides of ledger.
10. All splices in beams shall be over posts.



1. All stair stringers shall be cut from 2x12 lumber
2. Maximum Riser Height is 7-3/4 inches
3. Minimum Tread Depth is 10 inches
4. Stair treads and risers cannot vary in measurement greater than 3/4 inch
5. A Minimum of Three (3) stair jacks are required. Stair jacks shall be securely fastened to the deck platform with lag screws, joist hangers of correct size or by strapping.
6. The backs of stair risers shall be protected so that a four (4") sphere cannot pass through.
7. Stairs with four (4) or more risers require a graspable/grip able hand rail the full length of the stairs and shall be continuous without interruption. The handrail shall be installed at a height of thirty four (34") inches to the bottom and thirty eight (38") inches to the top.
8. The ends of the handrail shall be returned to the post or wall at the top and bottom of the stairs.
9. Stairs that go to a height greater than thirty (30") inches from bottom to top require a guard on all open sides of the stair. Guards shall be designed and built so that a four (4") sphere cannot pass through and the triangular portion where the guard meets the stair tread and riser shall be designed and built so that a six (6") sphere cannot pass through

Notes to Applicant:

1. Separate permits are required for electrical, plumbing, mechanical, sewer and water service and individual sewage treatment systems.
2. This permit shall be null and void if authorized work is not started within 180 days or if work is suspended or abandoned for 180 days or more after work is started.
3. Comply with City Code prohibitions and limitations of construction on City or Shakopee Public Utilities easements, SEC. 4.03.

Permit and Plan Review Fee are based on City Code 4.05.

The undersigned hereby represents upon all of the penalties of the law, for the purpose of including the City of Shakopee to take the action here in requested, that all statements are true, and that all work herein will be done in accordance with the ordinances of the City of Shakopee and the State of Minnesota.

ARRANGE FOR INSPECTIONS 24 HRS IN ADVANCE _____ Applicant's Signature/Date

- ___ Completed Application
- ___ ISTS Review (provided by Scott County Environmental Health)(septic sites ONLY)
- ___ Three (3) Legal Surveys W/Tree Preservation Plan
- ___ Two (2) Complete Sets of Plans (One No Larger than 11" X 17")
- ___ Heat Loss Calcs/ Manual J Energy Code Compliance form Required at submittal
- ___ SPUC Utility Review Form
- ___ Residential Equipment Form
- ___ Woodland Management Form (with attached plan/survey)
- ___ Alternate Erosion Control & Sediment Control Form (With Attached Plan/Survey)

Zone	Type of Const	Total Sq. Ft	Occupancy Group	Fire Sprinklers Required	CODE USED

Permit Approved By:

Notes:

- Shakopee Public Utilities / _____ Date
- Scott County/Enviro Health _____ Date
- Engineering Department _____ Date
- Natural Resources Department _____ Date
- Community Development Department _____ Date
- Building Department _____ Date

:\BUILDSEC\APPLICAT\APPLBLDCC (120104)

11. Mechanical connection is required between posts and footings to prevent uplift and instability.
12. Provide positive post beam connection between posts and beams (using bolted shoulder cut or approved bracket) **Bolting of beams to sides of post is prohibited.**
13. All fasteners (screws and nails) must be corrosion resistant. Only approved joist hanger nails or screws may be used in joist hangers with all holes filled. (Nails, Screws or other non-approved fasteners are prohibited).
14. MAXIMUM CANTILEVER OF A BEAM PAST A POST CANNOT EXCEED TWELVE (12) INCHES.
15. A special design is required for decks attached to house cantilevers (letter from truss manufacturer or structural engineer).
16. Decks built to support a future porch: require planning for increased beam, joist, post and footing sizes. Beam cantilevers are not permitted; posts shall be at outer edge of deck rims.
17. Stair stringers shall be attached to the deck rim with approved galvanized strapping, adjustable hangers or other approved method.

REQUIRED INSPECTIONS

1. **PRIOR TO DIGGING:** Call Gopher services at (651) 454-0002 or 811 to verify utility locations. A Forty-eight hour notice is required excluding weekends and holidays.
2. **Footing inspection:** After permit is approved and paid for, when all holes are dug, **BUT PRIOR TO POURING OF CONCRETE!**
3. **Framing Inspection:** Only if deck is less than 36 inches above grade.
4. **Final inspection:** When the structure has been completed.

JOIST SIZING CHART A.1

SIZE	SOUTHERN YELLOW PINE			WESTERN CEDAR		
	12" OC	16" OC	24" OC	12" OC	16" OC	24" OC
2X6	10'-9"	9'-9"	8'-6"	9'-2"	8'-4"	7'-3"
2X8	14'-2"	12'-10"	11'-0"	12'-1"	11'-0"	9'-2"
2X10	18'-0"	16'-1"	13'-5"	15'-5"	13'-9"	11'-3"
2X12	21'-9"	19'-0"	15'-4"	18'-5"	16'-0"	13'-0"



BEAM AND FOOTING SIZING A.2

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	2-2x12
	FOOTING SIZE	9"	10"	10"	11"	12"	13"	14"	14"	15"	15"	16"
7'	Southern Pine Beam	1-2x6	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x10	2-2x12
	FOOTING SIZE	9"	10"	11"	12"	13"	14"	15"	15"	16"	17"	17"
8'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12
	FOOTING SIZE	10"	11"	12"	13"	14"	15"	16"	16"	17"	18"	18"
9'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x12
	FOOTING SIZE	10"	12"	13"	14"	15"	16"	17"	17"	18"	19"	20"
10'	Southern Pine Beam	1-2x6	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10
	FOOTING SIZE	11"	12"	14"	15"	16"	17"	17"	18"	19"	20"	21"
11'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12
	FOOTING SIZE	12"	13"	14"	15"	16"	17"	17"	18"	19"	20"	21"
12'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x10	3-2x12
	FOOTING SIZE	12"	14"	15"	16"	17"	18"	19"	20"	21"	22"	23"
13'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12
	FOOTING SIZE	13"	14"	15"	17"	18"	19"	20"	21"	22"	23"	24"
14'	Southern Pine Beam	1-2x6	2-2x6	2-2x6	2-2x8	2-2x10	2-2x10	2-2x12	3-2x10	3-2x12	3-2x12	3-2x12
	FOOTING SIZE	13"	15"	16"	17"	18"	20"	21"	22"	23"	24"	24"
15'	Southern Pine Beam	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	3-2x12	Eng. Beam
	FOOTING SIZE	14"	15"	17"	18"	19"	20"	21"	22"	23"	24"	25"
16'	Southern Pine Beam	2-2x6	2-2x6	2-2x8	2-2x8	2-2x10	2-2x12	2-2x12	3-2x10	3-2x12	3-2x12	Eng. Beam
	FOOTING SIZE	14"	16"	17"	18"	20"	21"	22"	23"	24"	25"	26"

If a future porch is planned, inform the building department at the time of permit application so that sizing of joists, beams and footings can be calculated for the increased loading. All footing shall be belled at the bottom by 2" to prevent potential frost uplift.

City of Shakopee
 129 Holmes St. S. Shakopee, MN 55379
 Inspection: 952.233.9396
 Building: 952.233.9397
 Fax: 952.233.3801



Application For Building Permit

Date _____ Permit No. _____

Site Address	Rectangular Snp		
Legal Description	Lot	Block	Addition

Applicant: Owner _____ Contractor _____ Designer/Architect _____

Property Owner	Name/Company _____ Phone No. _____
	Address _____
	City _____ State _____ Zip _____
Contractor	Company _____ Phone No. _____
Designer/Architect	Contractor Registration License No.: _____ Expiration Date _____
	Contact Person (Print) _____ Phone No. _____
	Address _____
	City _____ State _____ Zip _____

Bldg Permit Type:	<input type="checkbox"/> 01 - SFD-Sewered	<input type="checkbox"/> 06 - Three/Four Plex	<input type="checkbox"/> 11 - Other _____	<input type="checkbox"/> 16 - Razing
	<input type="checkbox"/> 02 - SFD-Septic	<input type="checkbox"/> 07 - Window Replacement	<input type="checkbox"/> 12 - Pools	<input type="checkbox"/> 17 - Apartments
	<input type="checkbox"/> 03 - Multifamily	<input type="checkbox"/> 09 - Basements	<input type="checkbox"/> 13 - Re-Siding	<input type="checkbox"/> 18 - Porch
	<input type="checkbox"/> 04 - Townhouse	<input type="checkbox"/> 10 - Garages/Access	<input type="checkbox"/> 14 - Grade./Found'n	<input type="checkbox"/> 19 - Deck
	<input type="checkbox"/> 05 - Duplex Units		<input type="checkbox"/> 15 - Moving	<input type="checkbox"/> 21 - ReRoof
Work Type:	<input type="checkbox"/> 01 - New	<input type="checkbox"/> 03 - Addition	<input type="checkbox"/> 06 - Interior. Finish	<input type="checkbox"/>
	<input type="checkbox"/> 02 - Remodel/Alt.	<input type="checkbox"/> 04 - Repair	<input type="checkbox"/> 05 - Replace	<input type="checkbox"/>
Office Use	<input type="checkbox"/> 01 - Footing	<input type="checkbox"/> 04 - Insulation	<input type="checkbox"/> 07 - I.S.T.S.	<input type="checkbox"/> 08 - Other _____
	<input type="checkbox"/> 02 - Foundation	<input type="checkbox"/> 06 - Final	<input type="checkbox"/> 09 - Fireplace	
Required Inspections	<input type="checkbox"/> 03 - Framing			
Census Code:	New	New	New	<input type="checkbox"/> 434 - Alt./Add. Res.
	<input type="checkbox"/> 101 - 1 Fam. Res.	<input type="checkbox"/> 214 - Other Shelter	<input type="checkbox"/> 324 - Office/Bank	<input type="checkbox"/> 437 - Alt./Add. Nonres.
	<input type="checkbox"/> 102 - 1 Fam. Attached	<input type="checkbox"/> 318 - Amusement/Rec.	<input type="checkbox"/> 325 - Utilities	<input type="checkbox"/> 438 - Alt./Add. Res. Gr.
	<input type="checkbox"/> 103 - 2 Fam. (Duplex)	<input type="checkbox"/> 319 - Place of Worship	<input type="checkbox"/> 326 - Schools/Ed.	<input type="checkbox"/> 645 - Demo 1-Fam.
	<input type="checkbox"/> 104 - 3&4 Family	<input type="checkbox"/> 320 - Industrial	<input type="checkbox"/> 327 - Retail/Rest.	<input type="checkbox"/> 646 - Demo 2-Fam.
	<input type="checkbox"/> 105 - 5 or more Family	<input type="checkbox"/> 321 - Non Res. Garage	<input type="checkbox"/> 328 - Other Nonres.	<input type="checkbox"/> 647 - Demo 3&4 Fam.
	<input type="checkbox"/> 213 - Hotel/Motel	<input type="checkbox"/> 322 - Service Station	<input type="checkbox"/> 329 - Nonbldg	<input type="checkbox"/> 648 - Demo 5 or more
		<input type="checkbox"/> 323 - Hosp./Institution		<input type="checkbox"/> 649 - Demo Other

Does the lot have trees? _____ Are your removing trees? _____
 Is this address a Septic Site: Yes No

Description of Project: _____

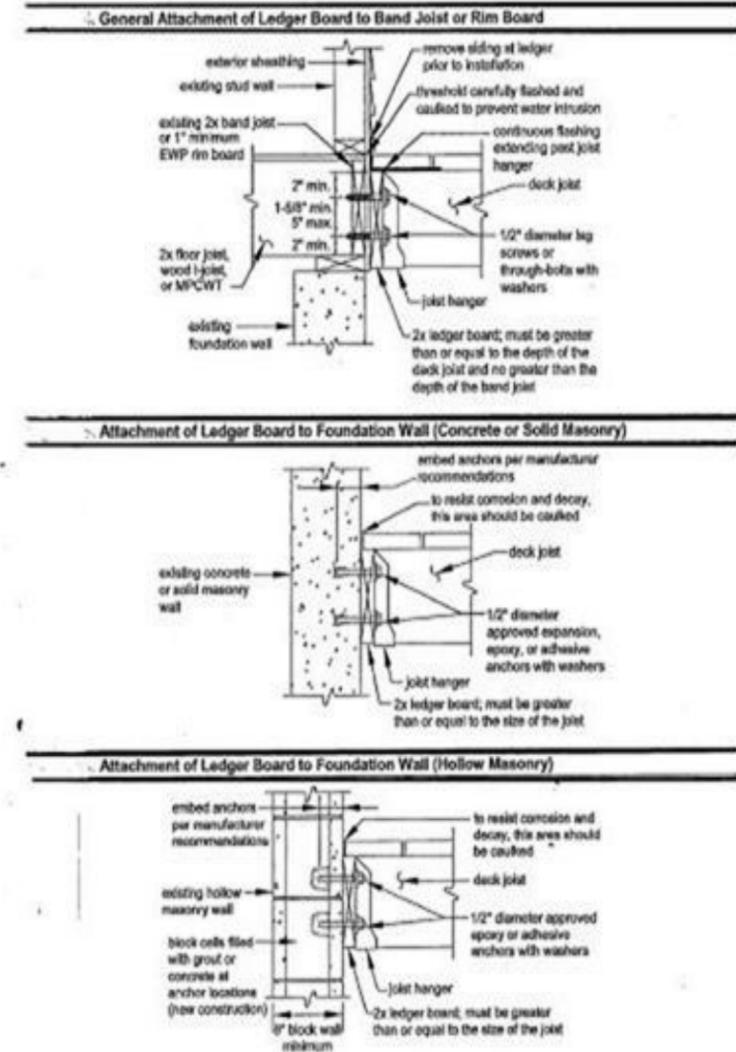
Estimated Value of Work \$ _____

Height _____ Length _____ Width _____ No. Of Dwelling Units _____ Stories _____

(Over)

EMERGENCY ESCAPE AND RESCUE

A minimum ceiling height of 36" shall be maintained above the exterior grade from the exterior wall to a public way

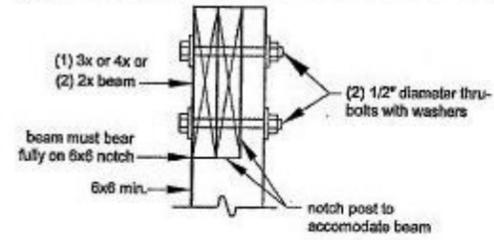


RIM JOIST DETAIL

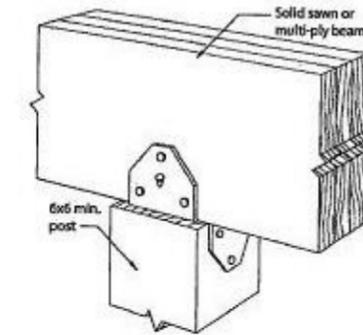
Only 2 -1/2" galvanized lag screws 16" on center (staggered) or other code approved fasteners are allowed.
Aluminum Flashing is prohibited

POST TO BEAM ATTACHMENT DETAIL

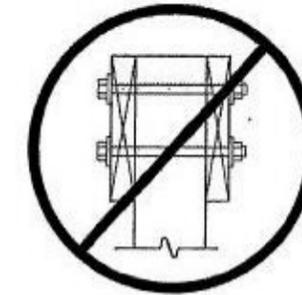
Post-to-Beam Attachment Requirements



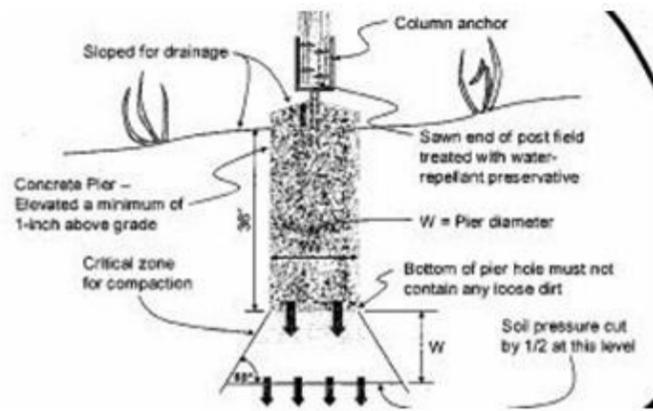
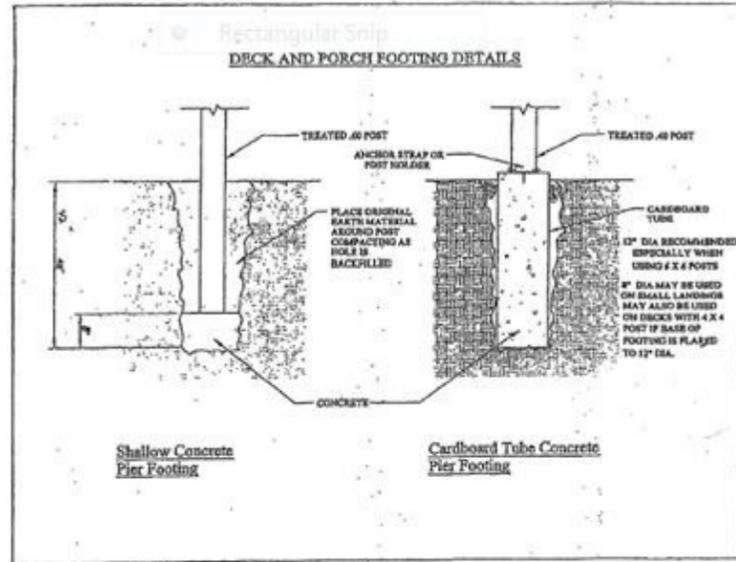
Alternate Approved Post-to-Beam Post Cap Attachment



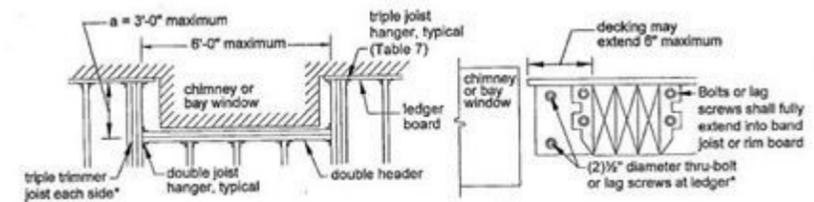
Prohibited Post-to-Beam Attachment Condition



DECK AND PORCH FOOTING DETAILS



CANTILEVER REINFORCEMENT GUIDELINES



A 4" minimum spacing is required between Cantilever/Bay window and header Assembly, with a 6" maximum allowed.