



HISTORIC PRESERVATION COMMISSION

Marc Elrich
County Executive

Robert K. Sutton
Chairman

Date: May 20, 2022

MEMORANDUM

TO: Mitra Pedoeem
Department of Permitting Services

FROM: Dan Bruechert
Historic Preservation Section
Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit #992529 - Deck Installation

The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **Approved** by HPC Staff.

The HPC staff has reviewed and stamped the attached construction drawings.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: Sara Nitz & Charles Nolan
Address: 24 Pine Ave., Takoma Park

This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete the applicant will contact Dan Bruechert at 301.563.3400 or dan.bruechert@montgomeryplanning.org to schedule a follow-up site visit.





HISTORIC PRESERVATION COMMISSION

HAWP #: _____ at: _____

submitted on: _____

has been reviewed and determined that the proposal fits into the following category/categories:

Repair or replacement of a masonry foundation with new masonry materials that closely match the original in appearance;

Installation of vents or venting pipes in locations not visible from the public right-of-way;

New gutters and downspouts;

Removal of vinyl, aluminum, asbestos, or other artificial siding when the original siding is to be repaired and/or replaced in kind;

Removal of accessory buildings that are not original to the site or non-historic construction;

Repair or replacement of missing or deteriorated architectural details such as trim or other millwork, stairs or stoops, porch decking or ceilings, columns, railings, balusters, brackets shutters, etc., with new materials that match the old in design, texture, visual characteristics, and, where possible materials, so long as the applicant is able to provide one extant example, photographic evidence, or physical evidence that serves as the basis for the work proposed;

Construction of wooden decks that are at the rear of a structure and are not visible from a public right-of-way;

Roof replacement with -compatible roofing materials, or with architectural shingles replacing 3-Tab asphalt shingles;

Installation of storm windows or doors that are compatible with the historic resource or district;

Repair, replacement or installation of foundation-level doors, windows, window wells, and areaways, or foundation vents, venting pipes, or exterior grills that do not alter the character-defining features and/or the historic character of the resource;

Construction of fences that are compatible with the historic site or district in material, height, location, and design;

Fence is lower than 48" in front of rear wall plane;

Construction of walkways, parking pads, patios, driveways, or other paved areas that are not visible from a public right-of-way and measure no more than 150 square feet in size;

Replacement of existing walkways, parking pads, patios, driveways, or other paved areas with materials that are compatible with the visual character of the historic site and district and that are no greater than the dimensions of the existing hardscape;

Construction of small accessory buildings no larger than 250 square feet in size that are not visible from the public right-of-way;

Installations of skylights on the rear of a structure that will not be visible from the public right-of-way, and would not remove or alter character-defining roof materials;

Installation of solar panels and arrays in locations that are not readily visible from the public right-of-way or that are designed so as to have a minimal impact on the historic resource or the historic district (e.g., systems that are ground-mounted in areas other than the front or side yard of a corner lot, located on accessory or outbuildings, on non-historic additions, or on rear facing roof planes);

Installation of car charging stations in any location on a property or in the right-of-way;

Installation of satellite dishes;

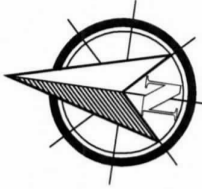
Removal of trees greater than 6" in diameter (d.b.h.) that are dead, dying, or present an immediate hazard.

Removal of trees greater than 6" in diameter (d.b.h.) in the rear of the property that will not impact the overall tree canopy of the surrounding district or historic site;

Replacement tree required as a condition; and,

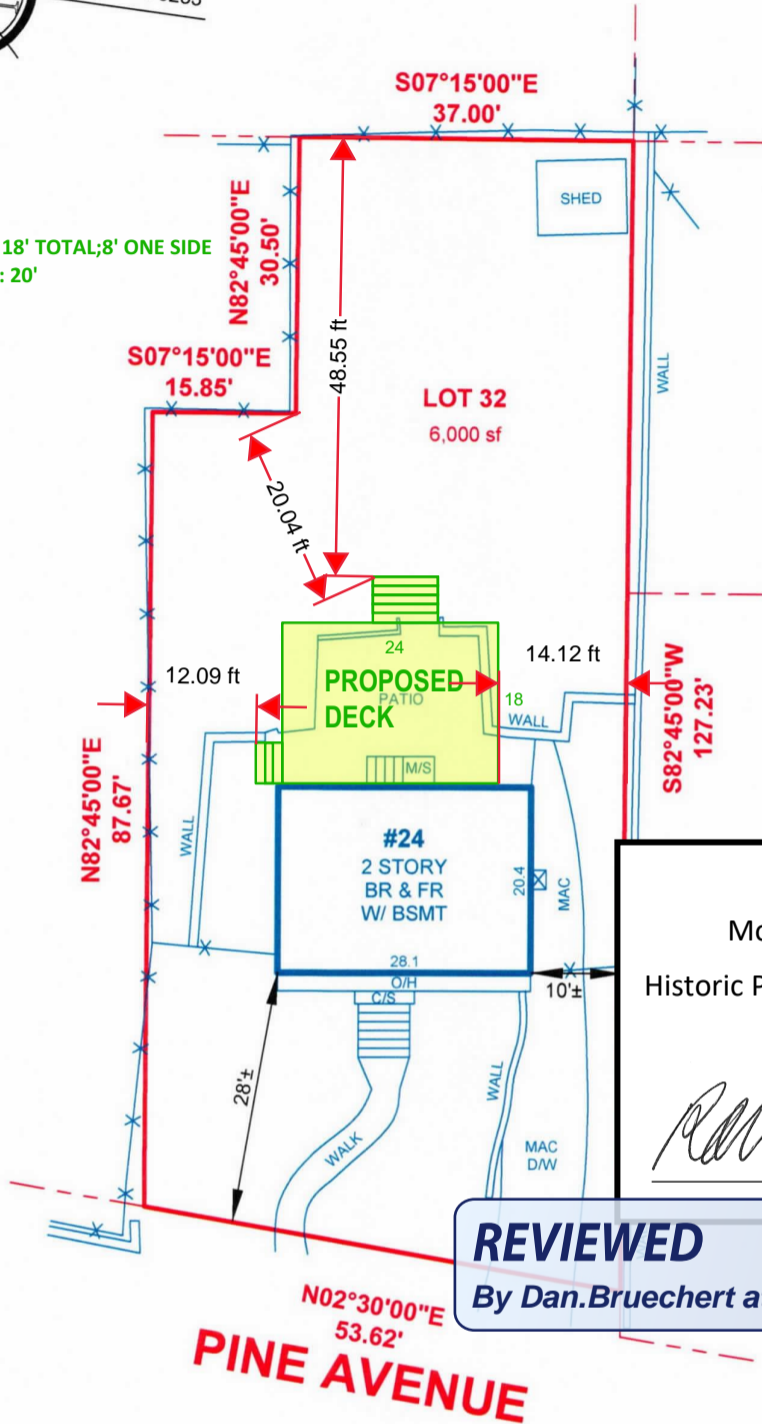
Other minor alterations that may be required by the Department of Permitting Services post-Commission approval that would have no material effect on the historic character of the property.

Staff finds the proposal complies with Chapter 24A, the Secretary of the Interior's Standards for Rehabilitation, and any additional requisite guidance. Under the authority of COMCOR No. 24A.04.01, this HAWP is approved by T. Brueckert on _____. The approval memo and stamped drawings follow.



PLAT NO. 6253

ZONE:R-60
MINIMUM SIDE SETBACK: 18' TOTAL;8' ONE SIDE
MINIMUM REAR SETBACK: 20'



APPROVED
Montgomery County
Historic Preservation Commission

REVIEWED

By Dan.Bruechert at 3:24 pm, May 20, 2022

THE LEVEL OF ACCURACY OF
DISTANCES TO APPARENT
PROPERTY LINES IS: **1'±**

LOCATION DRAWING OF:
#24 PINE AVENUE
LOT 32
BLOCK 17
TAKOMA PARK
PLAT NO. 6253
MONTGOMERY COUNTY, MARYLAND
SCALE: 1"=20' DATE: 03-18-2022
DRAWN BY: SM FILE #: 222574-200

- LEGEND:**
- ✕ - FENCE
 - B/E - BASEMENT ENTRANCE
 - B/W - BAY WINDOW
 - BR - BRICK
 - BRL - BLDG. RESTRICTION LINE
 - BSMT - BASEMENT
 - C/S - CONCRETE STOOP
 - CONC - CONCRETE
 - D/W - DRIVEWAY
 - Ex. - EXISTING
 - FR - FRAME
 - MAC - MACADAM
 - M/S - METAL STOOP
 - O/H - OVERHANG
 - PUE - PUBLIC UTILITY ESMT.
 - PIE - PUBLIC IMPROVEMENT ESMT.
- COLOR KEY:**
- (RED) - RECORD INFORMATION
 - (BLUE) - IMPROVEMENTS
 - (GREEN) - ESMTS & RESTRICTION LINES

A Land Surveying Company

DULEY
and
Associates, Inc.

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Email: orders@duley.biz On the web: www.duley.biz

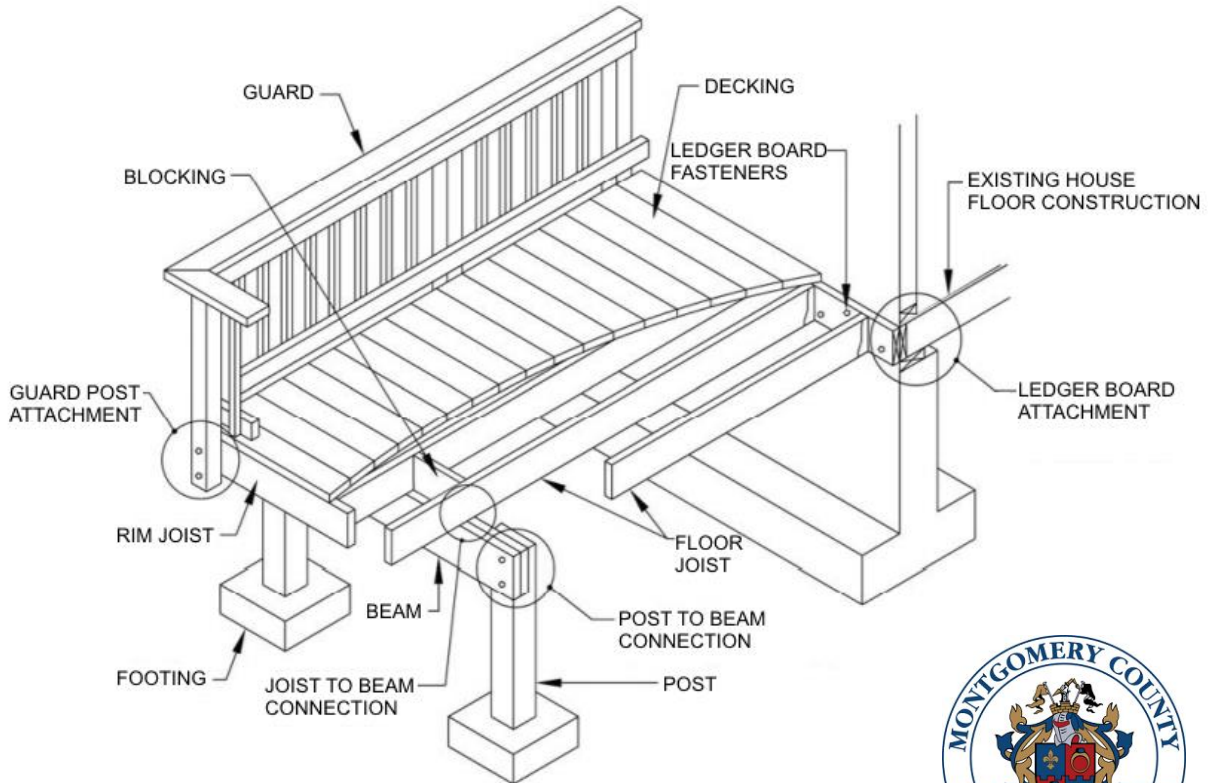


SURVEYOR'S CERTIFICATE

I HEREBY STATE THAT I WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEY WORK REFLECTED HEREIN AND IT IS IN COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN REGULATION 12 CHAPTER 09.13.06 OF THE CODE OF MARYLAND ANNOTATED REGULATIONS. THIS SURVEY IS NOT TO BE USED OR RELIED UPON FOR THE ESTABLISHMENT OF FENCES, BUILDING, OR OTHER IMPROVEMENTS. THIS PLAT DOES NOT PROVIDE FOR THE ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING OR REFINANCING. THIS PLAT IS OF BENEFIT TO A CONSUMER ONLY INsofar AS IT IS REQUIRED BY A LENDER OR A TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING. NO TITLE REPORT WAS FURNISHED TO NOR DONE BY THIS COMPANY. SAID PROPERTY SUBJECT TO ALL NOTES, RESTRICTIONS AND EASEMENTS OF RECORD. BUILDING RESTRICTION LINES AND EASEMENTS MAY NOT BE SHOWN ON THIS SURVEY. IMPROVEMENTS WHICH IN THE SURVEYOR'S OPINION APPEAR TO BE IN A STATE OF DISREPAIR OR MAY BE CONSIDERED "TEMPORARY" MAY NOT BE SHOWN. IF IT APPEARS ENCROACHMENTS MAY EXIST, A BOUNDARY SURVEY IS RECOMMENDED.

DULEY & ASSOC.
WILL GIVE YOU A 100%
FULL CREDIT TOWARDS
UPGRADING THIS
SURVEY TO A
"BOUNDARY/STAKE"
SURVEY FOR ONE
YEAR FROM THE DATE
OF THIS SURVEY.
(EXCLUDING D.C. & BALT. CITY)

MONTGOMERY COUNTY RESIDENTIAL TYPICAL DECK DETAILS Based on the 2018 International Residential Code



APPROVED
 Montgomery County
 Historic Preservation Commission

[Signature]

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REVIEWED
 By Dan.Bruechert at 3:24 pm, May 20, 2022

1. GENERAL REQUIREMENTS

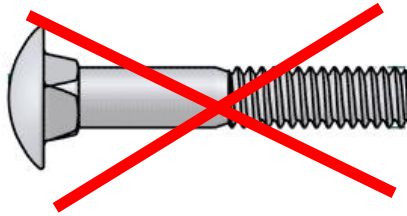
1. This document can be used in lieu of construction plans and it applies to single level – single span rectangular decks only. The overall deck length shall be equal to or less than the overall deck width. (Figures 1 or 2, page 4)
2. Band joists supporting attached decks shall be capable of supporting the new deck. If the condition can't be verified a free-standing deck or full plan submission will be required.
3. A copy of this document is required to be on the jobsite and available for inspection.
4. Deck joists shall be parallel to the house joists. When house joists are perpendicular to the deck joists a free-standing deck or full plan submission will be required.
5. Decks constructed according to these guidelines are not approved for future hot tub installations.
6. Decks shall not be attached to house overhangs, bay windows, or chimneys.
7. Deck shall not be loaded with more than 50 psf (pounds per square foot) total load. Soil bearing capacity shall be minimum 2000 psf and the minimum compressive strength of concrete shall be 3000 psi (pounds per square inch).
8. All deck lumber shall be #2 Southern Pine or better. All lumber shall be pressure-treated – with an approved process and preservative in accordance with the American Wood Protection Association standard. All lumber in contact with the ground shall be approved preservative treated wood suitable for ground contact.
9. Deck post size and maximum post height shall be in accordance with Table 1, page 5.
10. All screws, bolts, washers, nuts and nails shall be hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Hot-dipped galvanized fasteners shall meet the requirements of ASTM A 153. Class D for fasteners 3/8" diameter and smaller or Class C for fasteners with diameters over 3/8". Stainless steel driven fasteners shall be in accordance with the material requirements of ASTM F 1667. Fasteners other than nails and timber rivets shall be permitted to be of mechanically deposited zinc-coated steel with coatings and weights in accordance with ASTM B695, Class 55, minimum.
11. All connectors (joist hangers, cast-in-place post anchors, etc.) shall be galvanized or shall be stainless steel. Hardware to be hot-dipped galvanized prior to fabrication shall meet ASTM A653, G-185 coating. Hardware to be hot-dipped galvanized after fabrication shall meet ASTM A123.
12. Screws, spirally grooved and ring shanked nails shall be used for the deck surface and only manufacturer-specified fasteners shall be used to attach the connectors. Do not mix galvanized and stainless-steel connectors.
13. Decks 30 inches or less above grade are not required to have a guardrail. Grade measurement is at any point within 36" horizontally.
14. All decks that are accessible from the inside of the dwelling shall have at least one receptacle outlet accessible from the deck. (NEC 210.52(e)3).
15. Before you dig call MISS UTILITY 1-800-257-7777 (2-day notice is required). Please note that the Maryland High Voltage Line Act prohibits any person or object from getting closer than 10 feet to high voltage power lines.

DECK TYPES

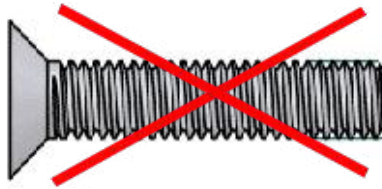
Attached Deck: a deck structure that is physically attached to and supported by the house with a ledger board.

Note: Not all decks are permitted to be attached to the house. Ledger Board attachment to brick veneer, stone or cultured stone, house cantilever, bay windows or chimneys, and web floor trusses are not permitted. Band joists supporting attached decks shall be capable of supporting the new deck. Deck joists shall be parallel to the house joists. If the condition can't be verified a free-standing deck or full plan submission will be required

Free-Standing Deck: a self-supporting deck structure built independently from the house, requires two support beams.

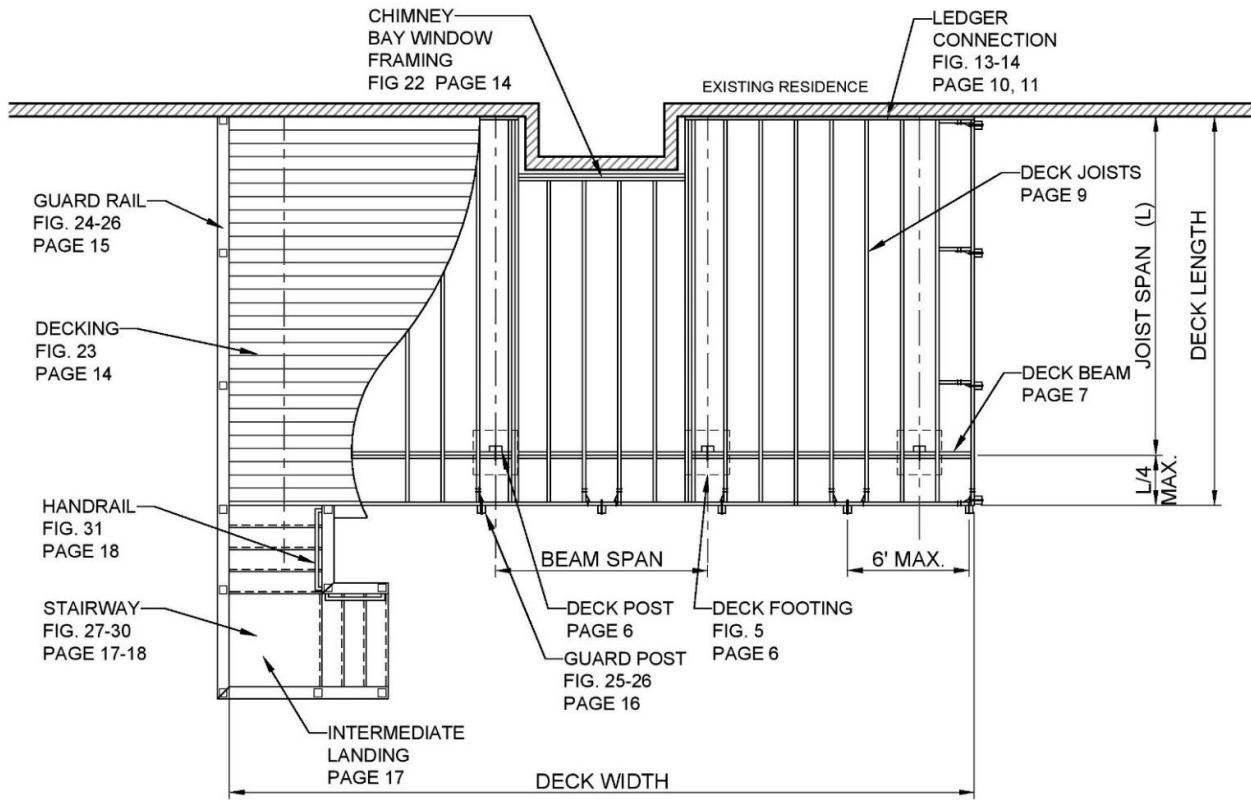


Carriage Bolts are not Permitted



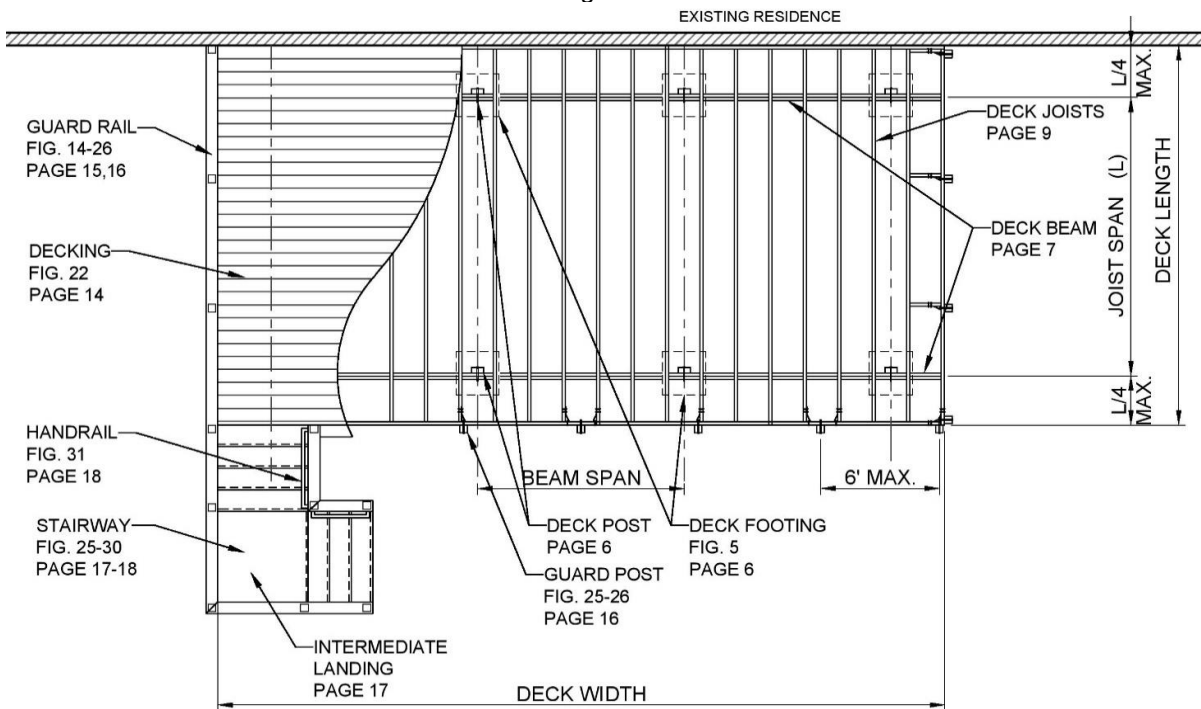
Countersunk bolts are not Permitted

2. DECK FRAMING PLANS AND SECTIONS



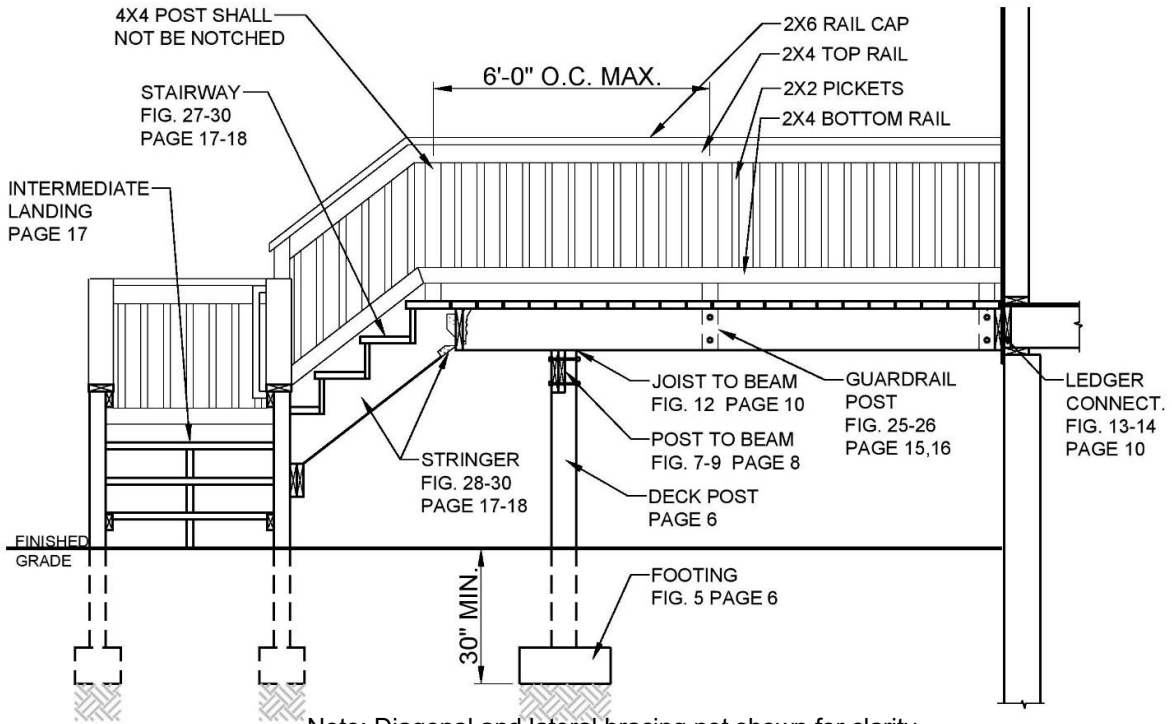
ATTACHED DECK

Figure 1



FREE STADING DECK

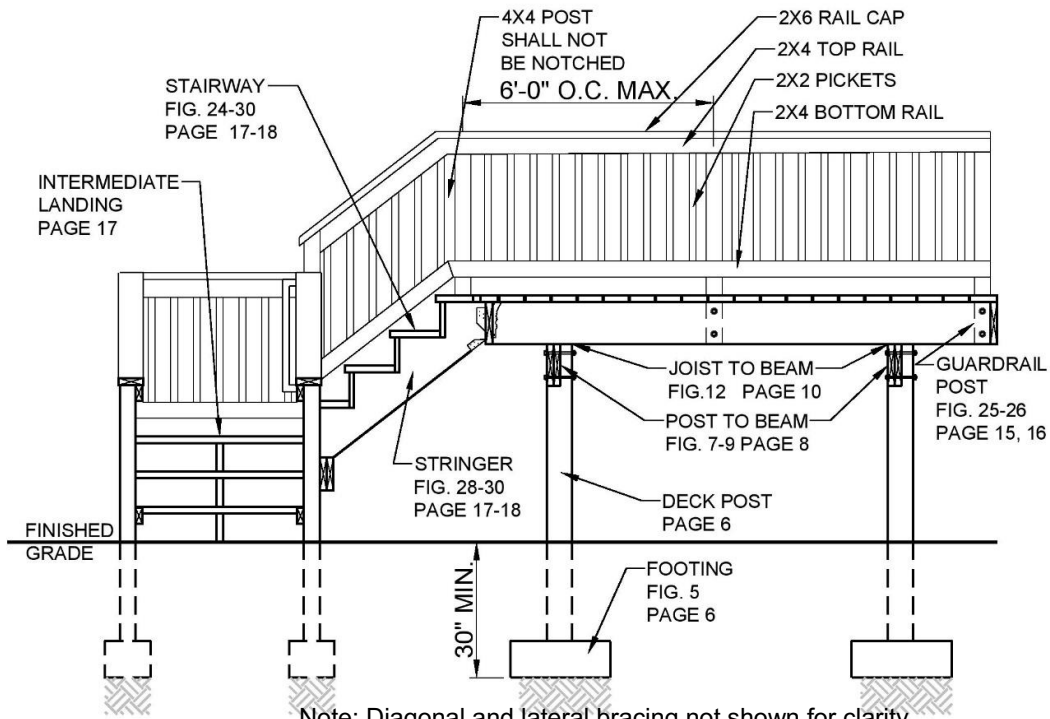
Figure 2



Note: Diagonal and lateral bracing not shown for clarity

ATTACHED DECK

Figure 3



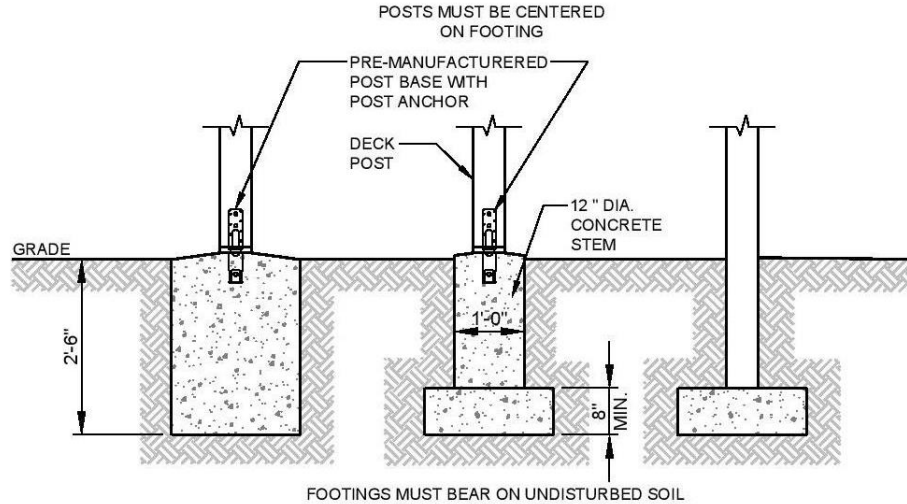
Note: Diagonal and lateral bracing not shown for clarity

FREE STANDING DECK

Figure 4

3. DECK FOOTINGS

Footings shall be minimum 20 inches square or 22 inches diameter. Bottom of footings shall be a minimum of 30 inches below grade and shall bear on undisturbed soil. **Deck footings closer than 5'-0" to an exterior house foundation wall must bear at the same elevation as the existing house foundation.** Distances to the edges of the footing and connector's embedment must be in accordance with the manufacturer's recommendations.



DECK FOOTINGS

Figure 5

- Posts shall be restrained to prevent lateral displacement at the bottom support by manufacturer connectors or by a minimum of 12" in surrounding soils or concrete piers. Where expansible, compressible, shifting or other questionable soils are present, soils shall not be relied on for lateral support.
- Cut ends of posts shall be field treated with an approved preservative.

4. DECK POSTS

Deck post size shall be in accordance with Table 1. The height of the post is measured from grade or top of foundation (whichever is higher) to the underside of the beam. Post shall be centered on the footing. Cut ends and notches of post shall be field treated with an approved preservative. The post shall be attached to the beam by notching as shown in Figure 7 or by providing an approved post cap to connect the post to the beam as shown in Figure 7. Where post bear on concrete footings lateral restraint shall be provided by manufactured connectors or a minimum post embedment of 12 inches in surrounding soils of concrete piers.

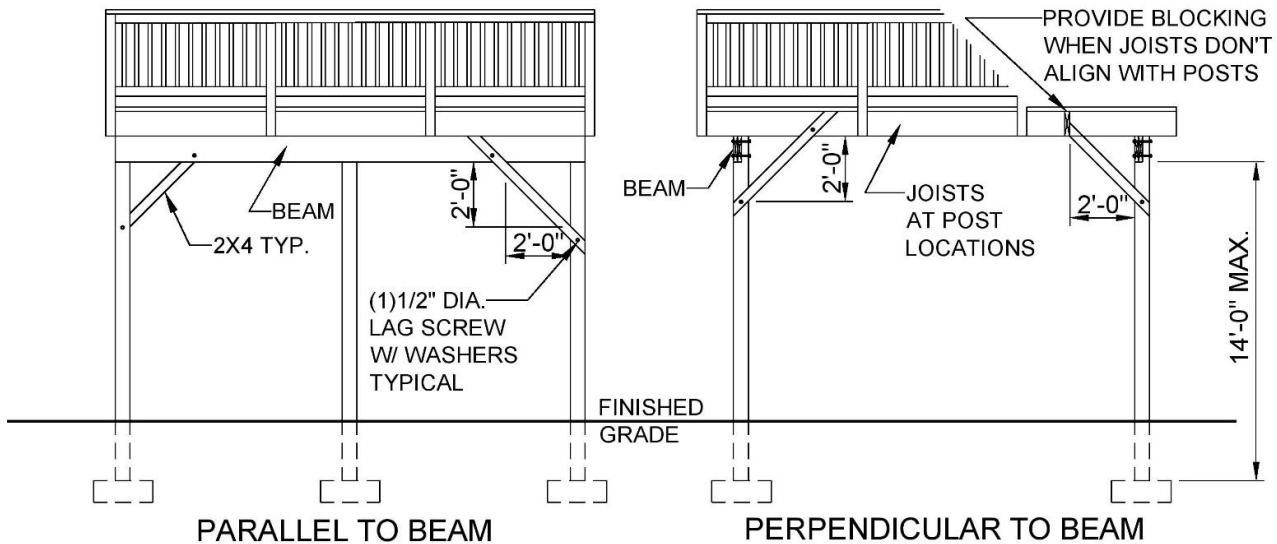
Provide diagonal bracing at each post greater than 2 feet in height (grade to bottom of beam) as shown in Figure 6. Diagonal bracing is prohibited on center posts. Bracing shall be fastened to the post at one end with 1/2" dia. Lag screws. One set of diagonal bracing shall be located between posts and beams or parallel to the house. Another set of diagonal bracing shall be located perpendicular to beams and house in the end spans. This bracing shall be bolted to the post and joist above the post location. If the joist spacing is such that a joist does not align over a post location an extra joist shall be added to facilitate connection of the diagonal bracing. For free standing decks (see Figure 4) diagonal bracing may be omitted at the beam and posts adjacent to the house.

DECK POST SIZE	MAXIMUM HEIGHT ^{a,b} (feet and inches)
4x4	6'-9"
6x6	14'-0"

a. Measured to the underside of the beam

b. Based on 40 psf live load

Table 1



Note: Diagonal bracing prohibited on center posts

Figure 6

5. DECK BEAM

Maximum allowable spans for deck beams to be as per Table 2. Beam plies shall be fastened with two rows of 10d (3 in x 0.128 in) nails minimum at 16" o.c. along each edge. Beams shall be permitted to cantilever up to 2 feet or up to one-fourth of the beam span, whichever is less. The ends of beams shall have a minimum of 1 1/2" inches of bearing.

DECK BEAM SPANS ^{a,b}

Size	DECK JOIST SPAN LESS THAN OR EQUAL TO: (feet)							
	6	8	10	12	14	16	18	
Southern Pine No. 2	(2) 2x6	6'-11"	5'-11"	5'-4"	4'-10"	4'-6"	4'-3"	4'-0"
	(2) 2x8	8'-9"	7'-7"	6'-9"	6'-2"	5'-9"	5'-4"	5'-0"
	(2) 2x10	10'-4"	9'-0"	8'-0"	7'-4"	6'-9"	6'-4"	6'-0"
	(2) 2x12	12'-2"	10'-7"	9'-5"	8'-7"	8'-0"	7'-6"	7'-0"
	(3) 2x6	8'-2"	7'-5"	6'-8"	6'-1"	5'-8"	5'-3"	5'-0"
	(3) 2x8	10'-10"	9'-6"	8'-6"	7'-9"	7'-2"	6'-8"	6'-4"
	(3) 2x10	13'-0"	11'-3"	10'-0"	9'-2"	8'-6"	7'-11"	7'-6"
	(3) 2x12	15'-3"	13'-3"	11'-10"	10'-9"	10'-0"	9'-4"	8'-10"

a. Beam depth shall be greater than or equal to the depth of the floor joist with a flush beam condition.

b. Beams shall be permitted to cantilever at each end 2 feet or up to one-fourth of the actual beam span, whichever is less.

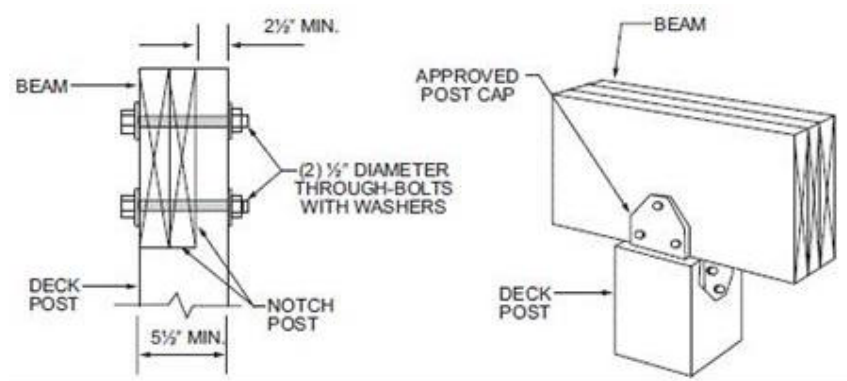
Table 2

6. POST TO BEAM CONNECTION

Deck beams shall be attached to deck post in a manner capable of transferring vertical loads and resisting horizontal displacement. Where multiple span beams bear on intermediate posts each ply must have full bearing on the post as shown on Figures 7, 8 and 9 Connections shall be as per Figures 7,8 and 9.

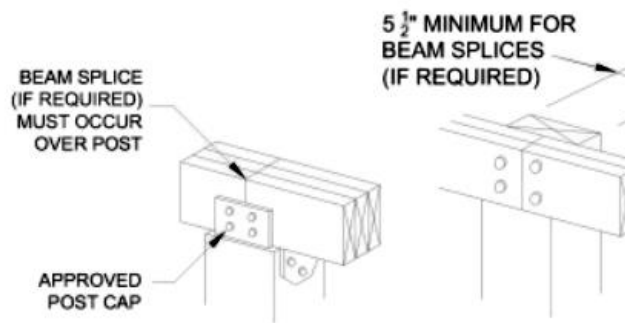
Manufactured post to beam connectors shall be sized for the post and beam sizes. Bolts shall have washers under the head and nut.

Beam to post connection with fasteners only is prohibited, see Figure 10. Built-up beams shall be assembled in accordance with Figure 11. For triple member beams, provide the nailing pattern shown to the outside member on each side; however staggered rows shall be offset so as not to occur in the same location.



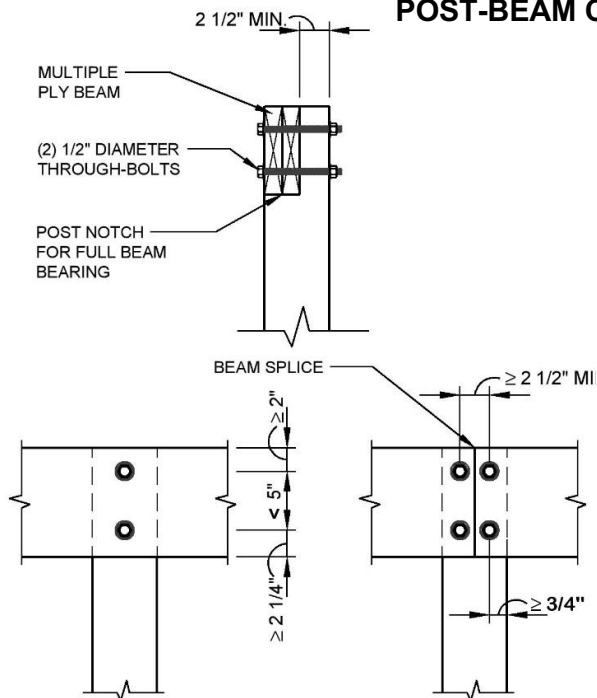
POST-BEAM CONNECTION

Figure 7



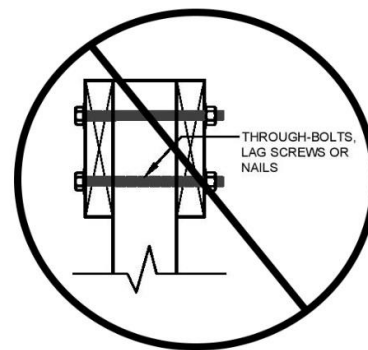
POST-BEAM CONNECTION AT SPLICE

Figure 8



NOTCHED POST TO BEAM CONNECTION

Figure 9

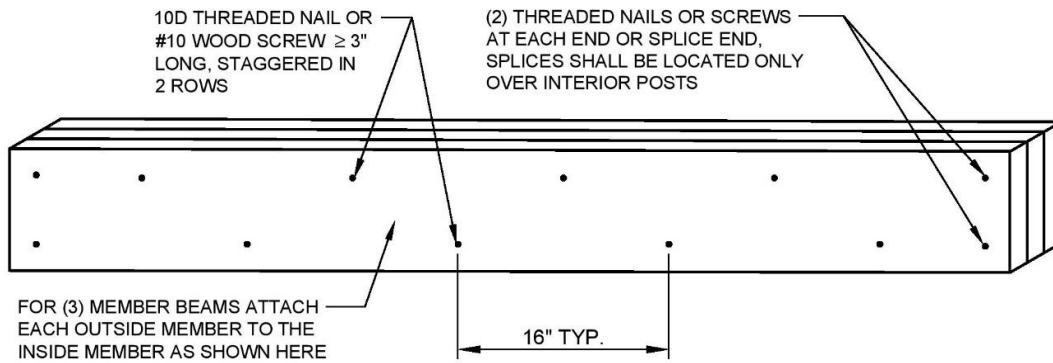


POST TO BEAM PROHIBITED CONNECTION

Figure 10

Note:

- a. Beams must span continuously between posts and shall be spliced at interior post locations only.
- b. Spans are measured between the centerline of bearings or supports.



BUILT-UP BEAM CONNECTION

Figure 11

7. DECK JOIST

Maximum allowable span for deck joists to be as per Table 3. The maximum cantilever shall be limited to one-fourth of the actual adjacent joist span or the maximum cantilevered length shown on table 3. Whichever is less. The ends of joists shall have not less than 1 ½” bearing on wood or metal. Joist framing into the side of a beam or ledger shall be supported by approved joists hangers. Joist ends and bearings shall be provided with lateral resistance to prevent rotation by joists hangers or blocking and their depth shall not be less than 60% of the joist depth. Rim joists shall be secure to the end of each joist with no less than three 10d (3-in x 0.128in) nails or three No. 10 x 3-in long wood screws.

SPECIES	SIZE	ALLOWABLE JOIST SPAN SPACING OF DECK JOISTS			MAXIMUM CANTILEVER SPACING OF DECK JOISTS WITH CANTILEVER		
		(inches)			(inches)		
Southern Pine No. 2		12	16	24	12	16	24
	2x6	9'-11"	9'-0"	7'-7"	1'-3"	1'-4"	1'-6"
	2x8	13'-1"	11'-10"	9'-8"	2'-1"	2'-3"	2'-5"
	2x10	16'-2"	14'-0"	11'-5"	3'-4"	3'-6"	2'-10"
	2x12	18'-0"	16'-6"	13'-6"	4'-6"	4'-2"	3'-4"

Table 3

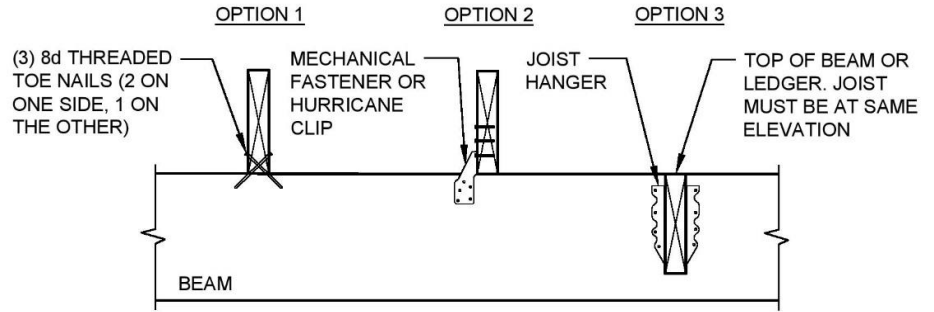
8. JOIST TO BEAM CONNECTION

Each joist shall be attached to the beam as shown on Figure 12. Joist may bear on an overhang past the beam face when Option 1 or Option 2 is used, and blocking is provided between joists at beam bearing. Option 2 mechanical fasteners of hurricane clips must have a minimum uplift and lateral load capacity of 100 lbs in both uplift and lateral load directions. Joists may also be attached to the side of the beam with joist hangers per Option 3. Joists shall not frame in from opposite sides of the beam. Joist hangers shall be at least 60% of the ledger of beam depth. See Table 4 for minimum joist hanger capacity. Inside flange hangers can be used at edge conditions. Clip angles or brackets to support deck joists are prohibited.

F

JOIST SIZE	MIN. CAPACITY
2x6	400 lbs
2x8	500 lbs
2x10	600 lbs
2x12	700 lbs

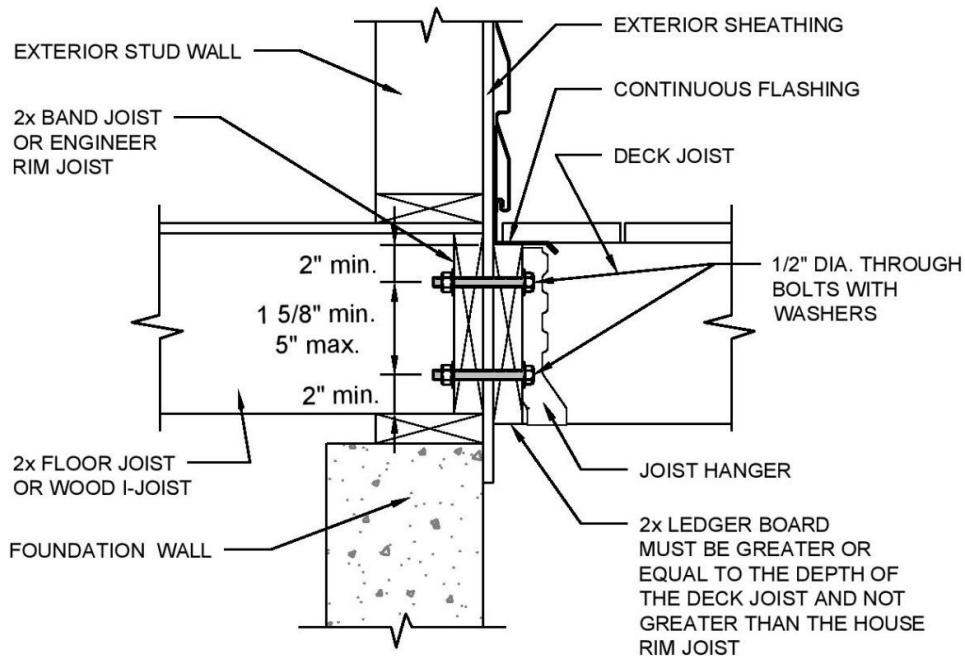
JOIST HANGER VERTICAL CAPACITY
Table 4



JOIST TO BEAM CONNECTION
Figure 12

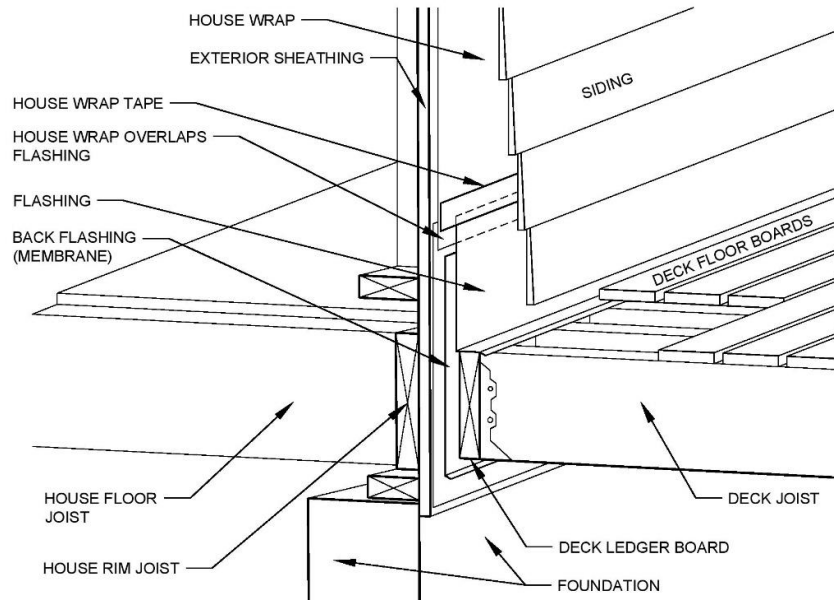
9. LEDGER DECK ATTACHMENT

The ledger board shall be equal to or greater than the deck joist depth but equal or less than the house band or rim joist. Ledger board attachments to the exterior wall shall be constructed as indicated in Figure 13. The ledger shall be a minimum nominal 2x8. When attachments are made to the house band joist the connection shall be to a 2" nominal lumber band joist or LVL rim joist bearing on a sill plate or wall plate and it shall be constructed with 1/2" bolts with washers. The band joist shall be capable of supporting the new deck. If this cannot be verified or conditions at the house differ from the details herein, a free-standing deck or full plan submission will be required. Prohibited ledger board attachments are attachment to or through exterior veneers (Brick, Masonry, Stone) Figure 16, cantilever floor overhangs Figure 16, open web trusses Figure 16, as they are not intended or designed to support a new deck.



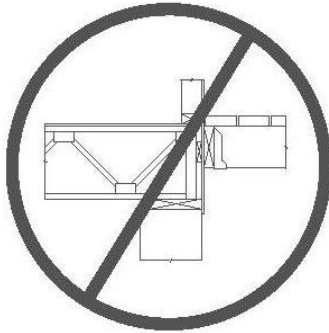
Note: Flashing is not shown for clarity

LEDGER BOARD TO RIM JOIST ATTACHMENT
Figure 13

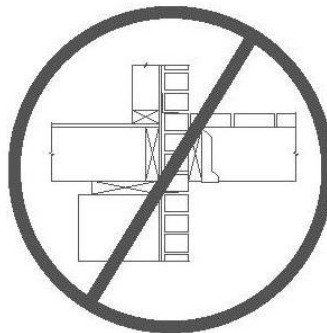


ATTACHED DECK FLASHING DETAIL

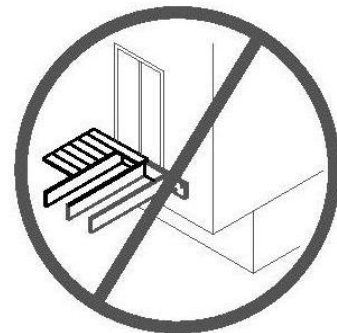
Figure 15



Attachment to Open Web Trusses



Attachment to Brick, Masonry or Stone Veneers

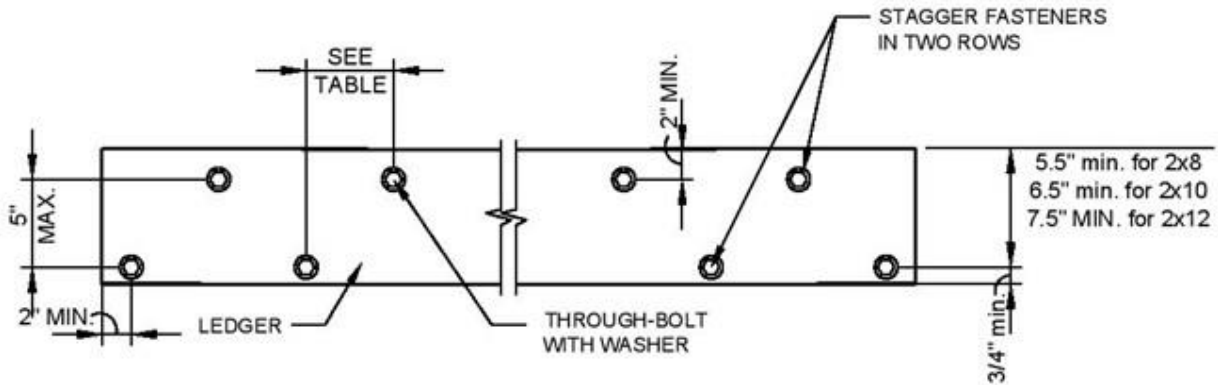


Attachment to House Overhang or Chimney

PROHIBITED LEDGER ATTACHMENTS

Figure 16

10. LEDGER BOARD FASTENERS



LEDGER FASTENER SPACING AND CLEARANCES

Figure 17

Connection	On-Center Spacing of Fasteners						
	6'-0"	8'-0"	10'-0"	12'-0"	14'-0"	16'-0"	18'-0"
1/2" dia. bolt	24"	18"	14"	12"	10"	9"	8"

FASTENER SPACING

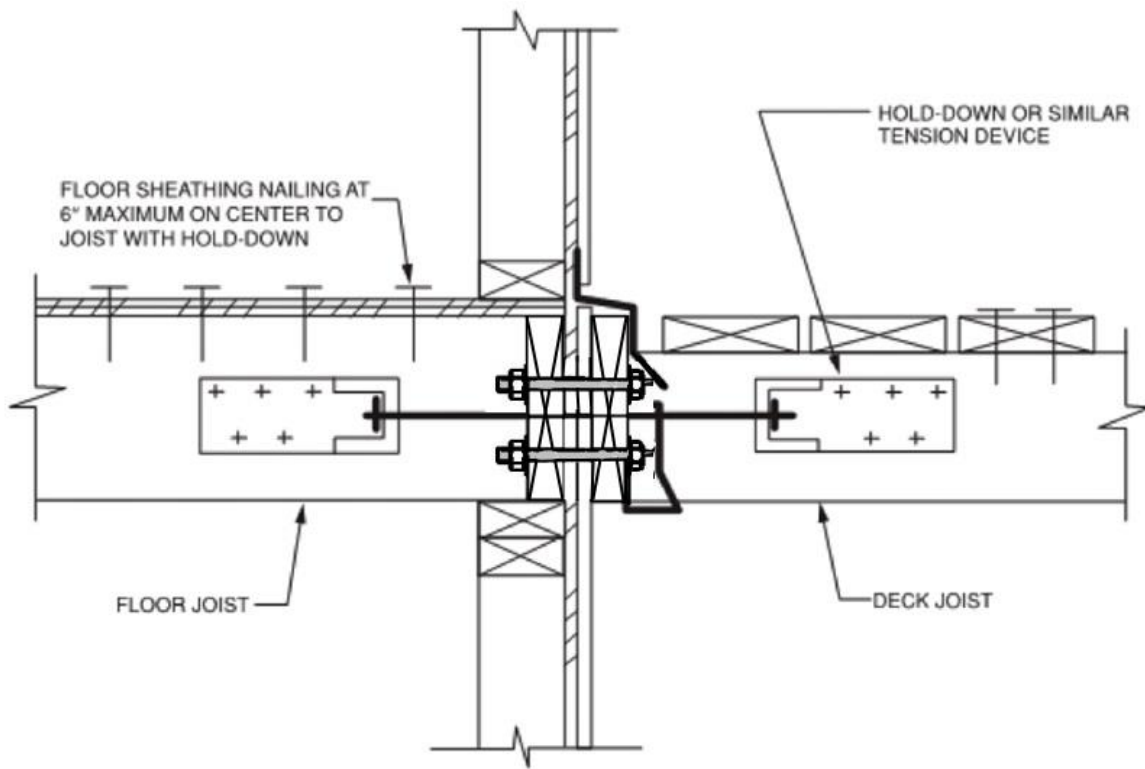
Table 5

Through-Bolts

Through-Bolts shall have a diameter of 1/2". Pilot holes for through-bolts shall be 17/32" to 9/16" in diameter. Through-Bolts require washers at the bolt head and nut.

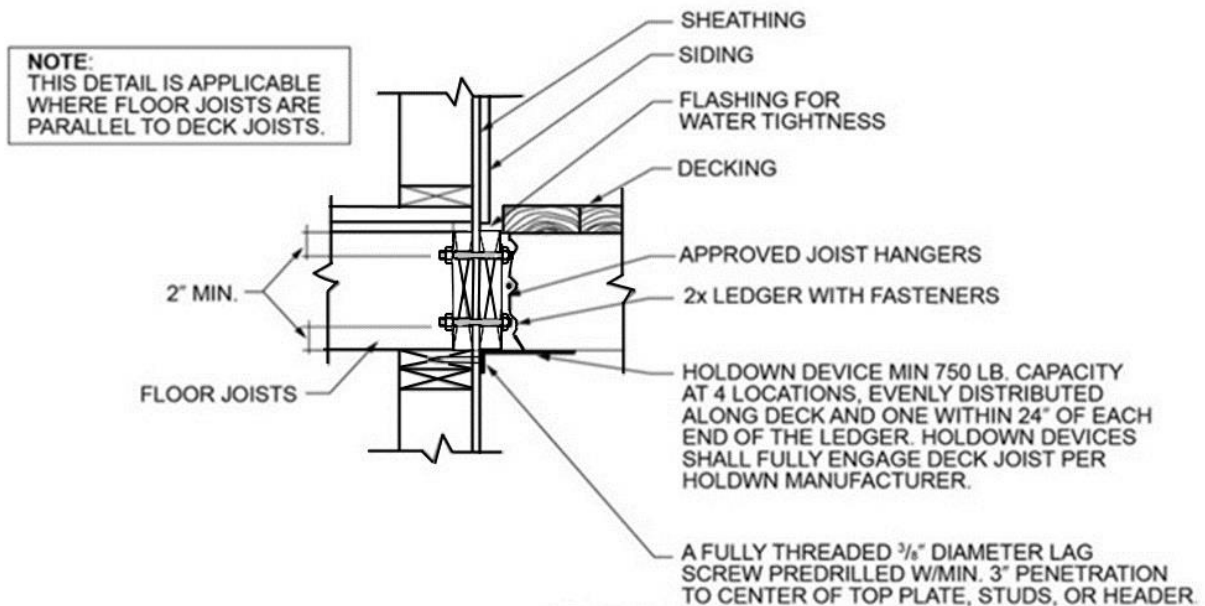
11. DECK LATERAL LOAD CONNECTION

Decks shall be positively anchored to the primary structure. The lateral connection shall be permitted in accordance with Figures 19 and 20. For conditions where the house joists are parallel to the deck joists hold-down devices shall be provided not less than two locations within two feet of the edge of the deck and shall have an allowable design capacity of not less than 1,500lbs (Figure 19); or hold down devices shall be connected to the base of the deck to house structure at not less than 4 locations, evenly distributed along deck and within 2 ft of each end and shall have an allowable design capacity of not less than 750 lbs each (figure 20).



**LATERAL LOAD CONNECTION
DECK JOISTS PARALLEL TO HOUSE JOISTS**

Figure 19

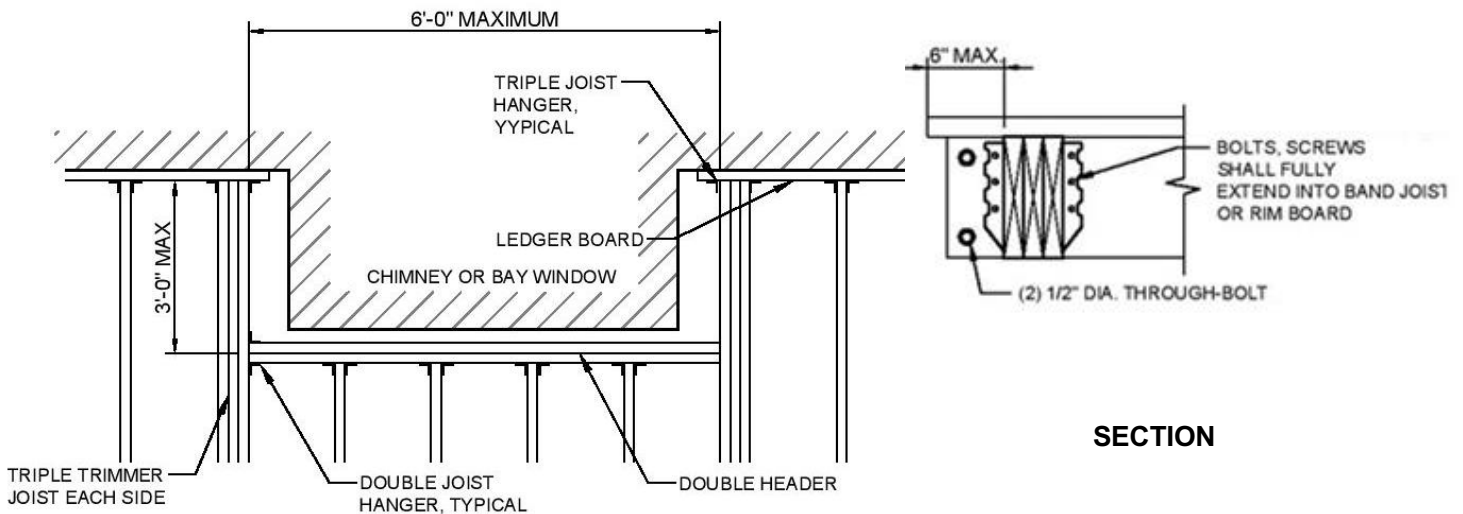


**LATERAL LOAD CONNECTION
DECK JOISTS PARALLEL TO HOUSE JOISTS**

Figure 20

12. DECK FRAMING AT CHIMNEY OR BAY WINDOW

All members at chimneys or bay windows shall be framed in accordance with Figure 22. Header may span a maximum of 6'-0". When a chimney or bay window is wider than 6'-0", one or more 6x6 post may be added to reduce header spans to less than 6'-0". In such cases, the post footing must meet the requirements in the footings section. Headers shall be located no more than 3'-0" from the end of the trimmer joist. Triple trimmer joists are required on each side of the header. Joist hangers shall each have a minimum vertical capacity in accordance with Table 4. Bolts, screws, or lag screws used to attach the hanger to the ledger shall fully extend through the ledger into the 2-inch nominal lumber band joist (1-1/2" actual) or LVL rim joist. Otherwise a free-standing deck is required.



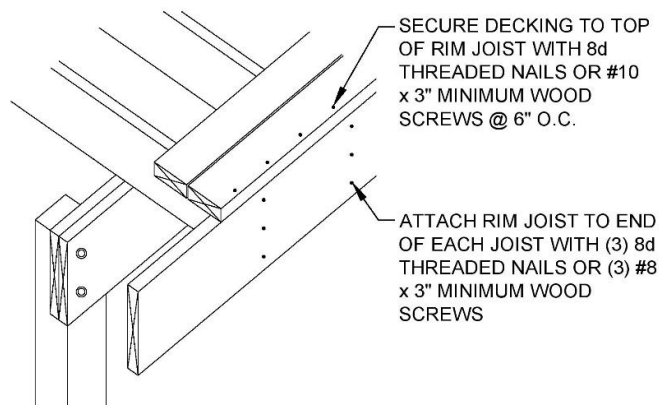
FRAMING AROUND CHIMNEY OR BAY WINDOW

Figure 22

13. DECKING

Decking laid perpendicular to joists may consist of 2x6 structural lumber supported by joists spaced at 24" o.c. maximum or 1 1/4 inch thick wood decking supported by joists spaced 16" o.c. maximum. Attach decking to each joist with 2-8d threaded nails or 2-#10 screws. Space decking boards approximately 1/8" apart. See figure 23 for decking connection requirements to rim joist. Decking placement may range from an angle perpendicular to the joist to an angle of 45 degrees to the joist. Each segment of decking must bear on a minimum of 3 joist.

Plastic composite deck boards and stair treads will be accepted if they are labeled to indicate compliance with ASTM D7032. A complete current code evaluation report for the manufactured decking system that includes the maximum allowable load and span must be provided to the building inspector at the time of framing inspection. Manufactured decking systems must be installed in accordance with the code evaluation report and manufacturer's specifications.

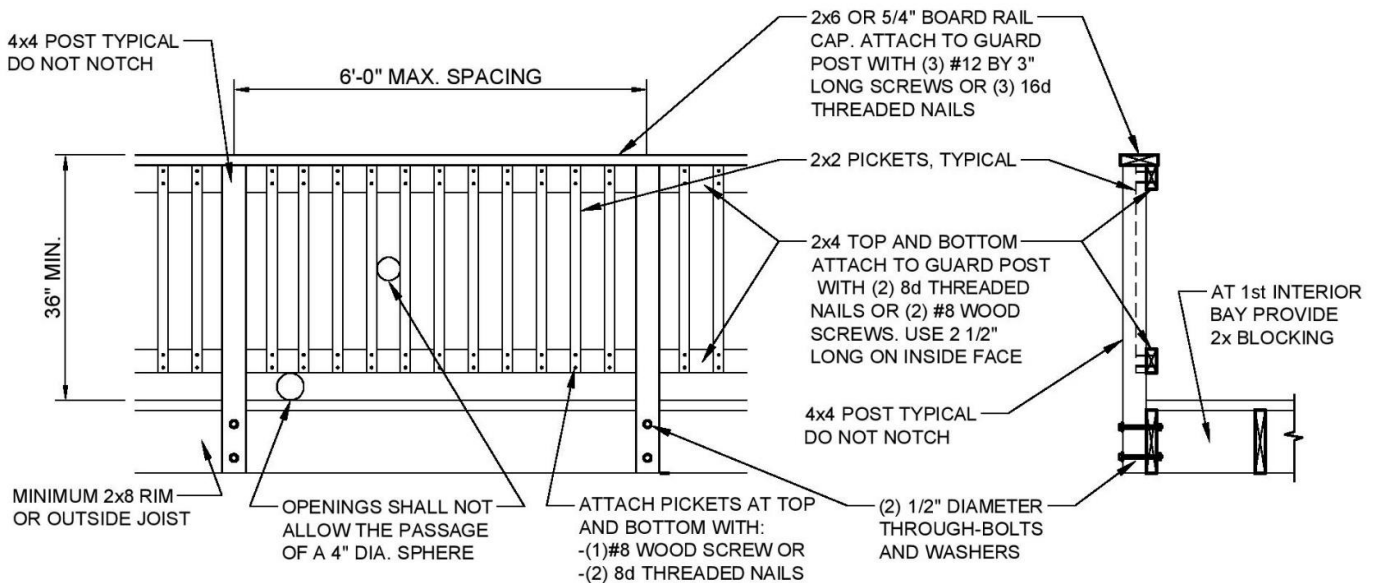


RIM JOIST CONNECTION DETAIL
Figure 23

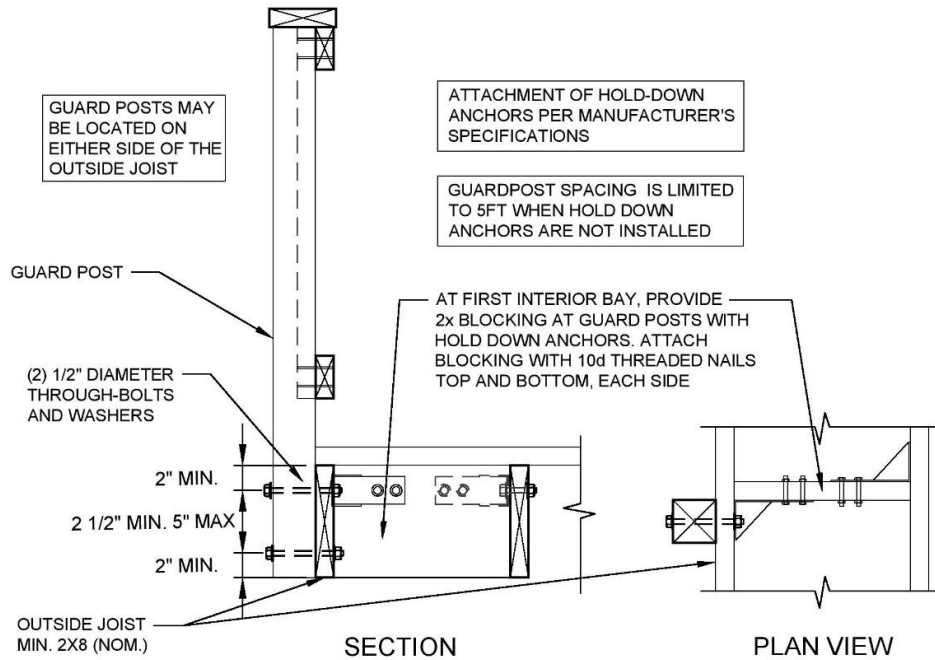
14. DECK GUARDRAIL

All decks greater than 30" above grade are required to have a guard constructed as shown in Figure 24. Deck guard posts shall be a minimum 4x4 (nominal). Joists and rim joists to which guards post are attached shall be a minimum of 2x8 (nominal). Guard post which run parallel to the deck joist shall be attached to the outside joist as per figure 25. Guard post that run perpendicular to the deck joists shall be attached to the rim joist in accordance with Figure 26. Hold down anchors shall have a minimum allowable tension load of 1,800 lbs for a 36" maximum guard height and shall be installed in accordance with manufacturer's instructions.

Manufactured railing systems will be accepted only if they are labeled to indicate compliance with ASTM D7032 and listed by an approved code agency in a current code evaluation report. A complete current code evaluation report for the manufactured railing system to be installed must be provided to the building inspector at the time of framing inspection. Manufactured railing systems must be installed in accordance with the report and manufacturer's specifications. Wood post spacing and connections, if used for supporting manufactured rails, balusters or pickets, must follow the conditions specified by the code evaluation report.

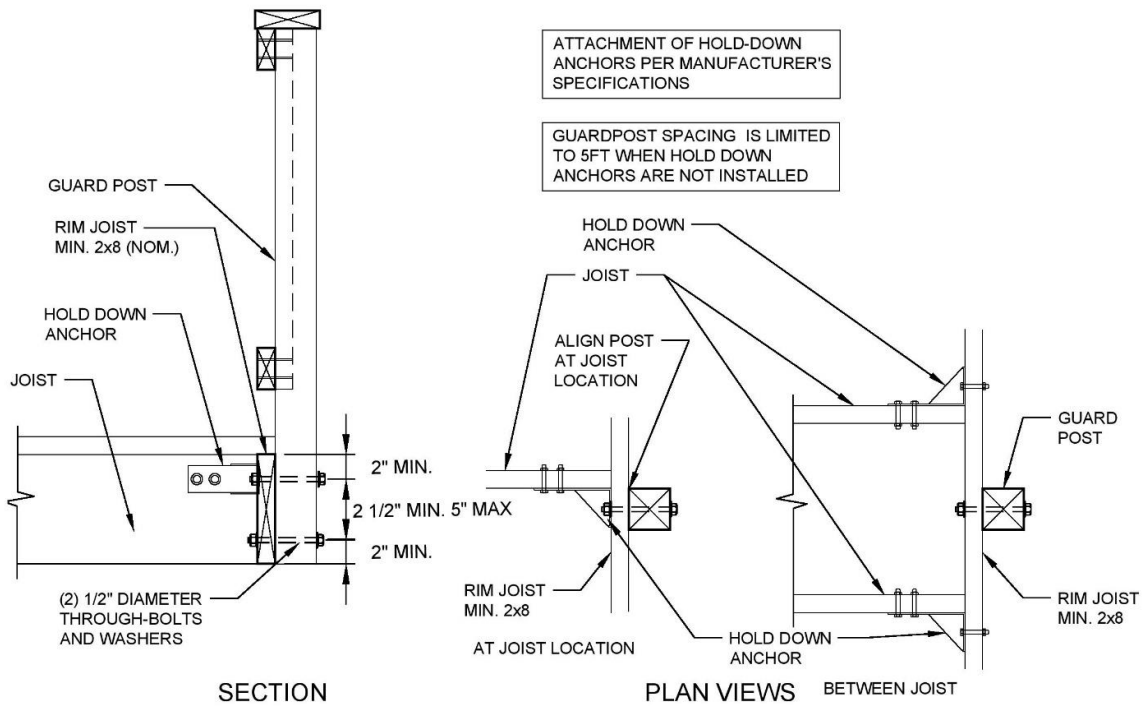


DECK GUARD DETAIL
Figure 24



GUARD POST TO OUTSIDE JOIST

Figure 25



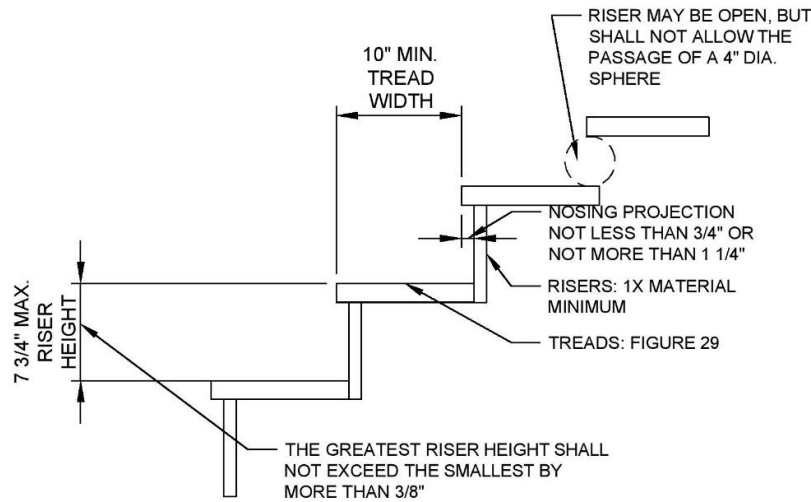
GUARD POST TO RIM JOIST

Figure 26

15. STAIR REQUIREMENTS

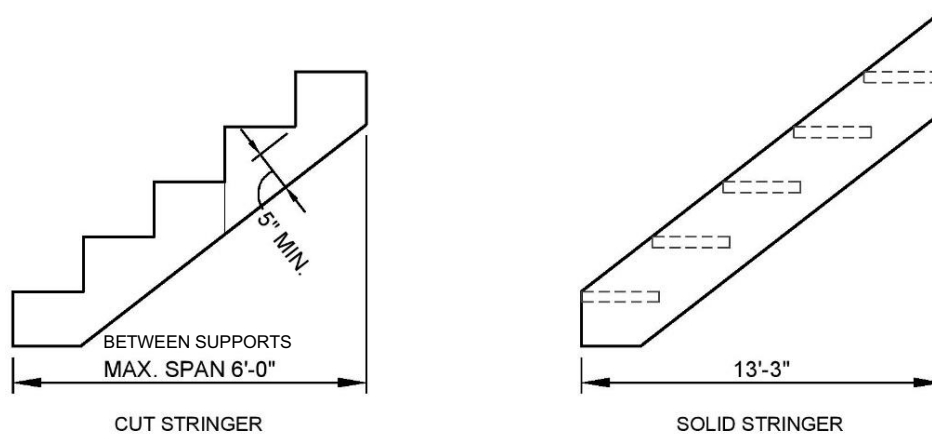
Stair, stair stringers, and guards shall meet the requirements shown in Figure 27 through Figure 34. All stringers shall be a minimum of 2x12. Stair stringers shall not span more than the dimensions shown on Figure 28. An intermediate landing may also be provided to shorten the stringer span. If the total vertical height for a stairway exceeds 12'-0" and intermediate landing will be required.

All **intermediate stair landings** must be constructed as a non-ledger deck using the details in this document. Stair shall be a minimum of 36" in width. If only cut stringers are used, a minimum of 3 stringers are required. For stairs greater than 36" in width, a combination of cut and solid stringers can be used but shall be placed at a maximum spacing of 18" on center (see Figure 29). Stair stringers must be fully supported or connected to the deck structure (see Figures 30 and 33) The width of each landing shall not be less than the width of the stairway served. Every rectangular landing shall have a minimum dimension of 36" measured in the direction of travel and not less than the width of the stair served.



TREAD AND RISER DETAIL

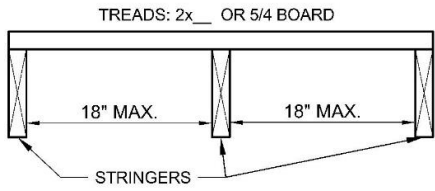
Figure 27



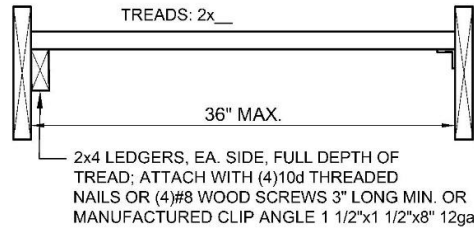
STAIR STRINGER REQUIREMENTS

Figure 28

ATTACHMENT PER TREAD AT EACH STRINGER OR LEDGER:
 2x__ OR 5/4" TREADS - (2)8d THREADED NAILS OR (2)#8 SCREWS 2 1/2" LONG MIN.
 3x__ TREADS - (2) 16D THREADED NAILS OR (2)#8 SCREWS 3 1/2" LONG MIN.



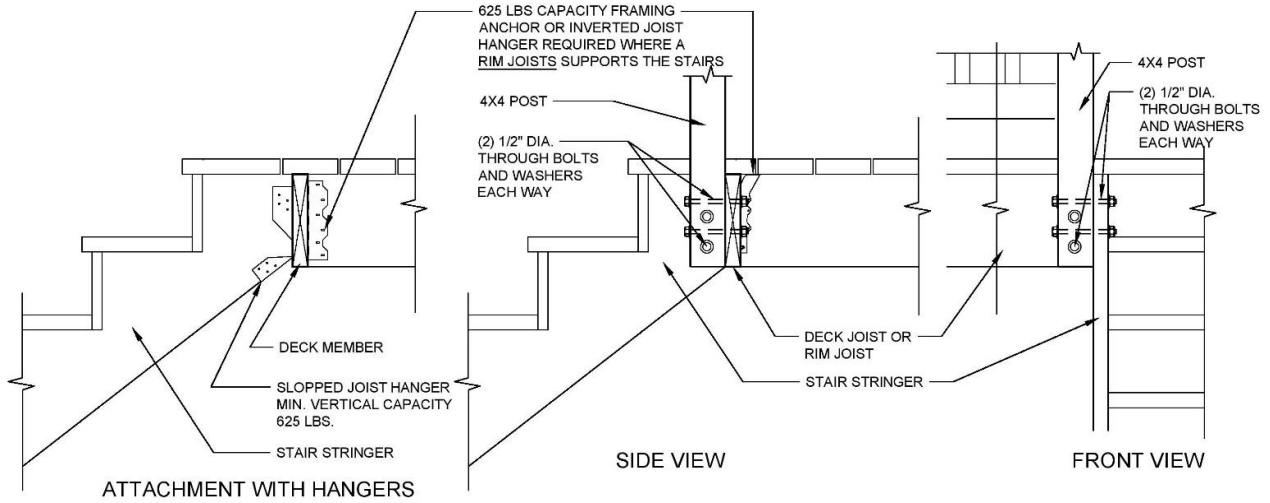
CUT STRINGER



SOLID STRINGER

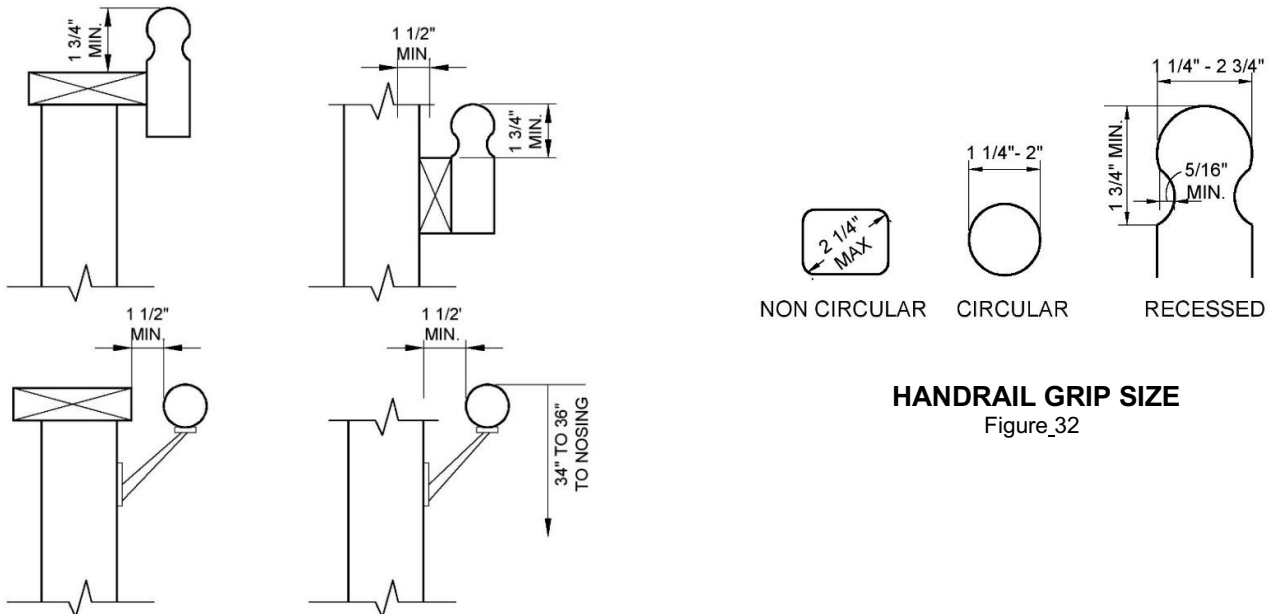
TREAD CONNECTION REQUIREMENTS

Figure 29



STAIR STRINGER ATTACHMENT

Figure 30

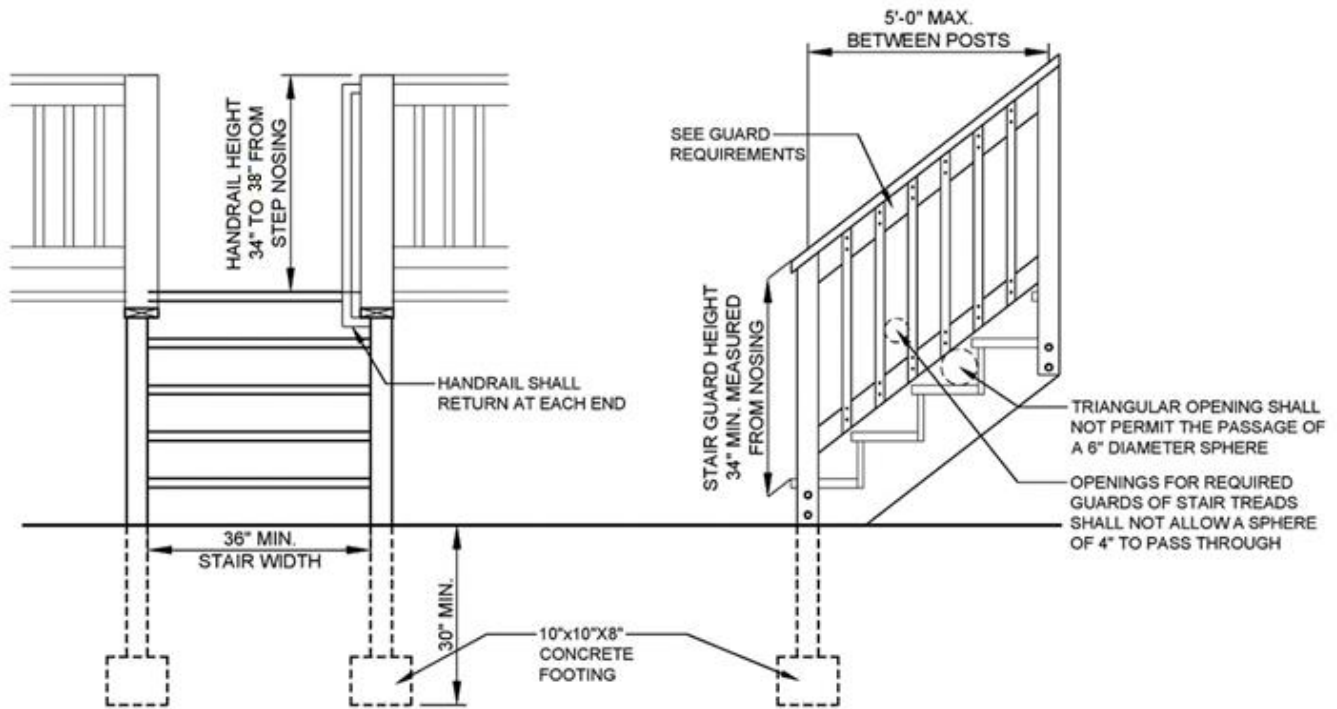


HANDRAIL GRIP SIZE

Figure 32

HANDRAIL MOUNTING EXAMPLES

Figure 31



STAIR AND GUARDRAIL REQUIREMENTS

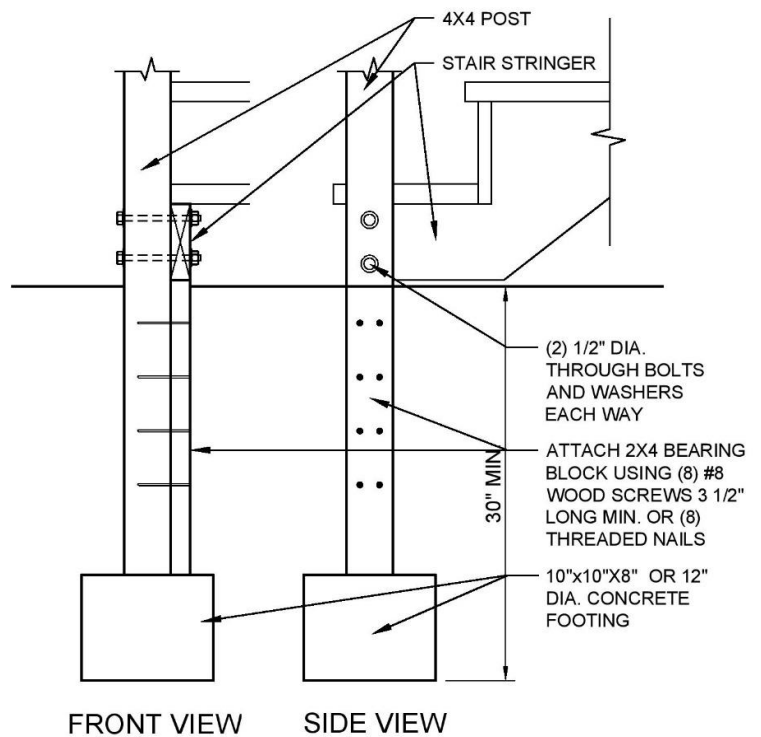
Figure 33

STAIR FOOTING REQUIREMENTS

Where the stair meets the grade, attach the stringers to the stair guard post as shown of Figure 33. Post shall bear on footings. All footing shall bear on solid ground at least 30" below grade. Stringers shall bear on 2x4 bearing block attached to the post as shown.

STAIR LIGHTING REQUIREMENTS

Stairways shall have a light source located at the top landing such that all stairs and landings are illuminated. The light switch shall be operated from the inside of the house. Motion detected or timed switches are acceptable



STAIR FOOTING DETAIL

Figure 34

16. DECK WORKSHEET

This worksheet is provided to help you determine compliance with the requirements of the Montgomery County Residential Typical Deck Details

1. Attached Deck or Free-Standing Deck
2. Deck Dimensions (L): 18' x (W) 24' x Height 6'
3. Footing Size: 12x24x30 Total #: 8 (including stairs)
4. Post Spacing: 9'
5. Beam Size (2) 2 x 12
6. Post Base/Cap Connectors: YES NO
7. Ledger Size: 2 x 8 w/ 1/2" dia. Bolts
8. Joists 2 x 8 @ 16 o.c.
9. Deck Boards: Wood Composite*
(*Provide current Code Evaluation Report @ Framing Inspection)
10. Guardrails: Wood or Composite*
(*Provide current Code Evaluation Report @ Framing Inspection)