

CITY OF ENCINITAS
Development Services Department
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BUILDING PERMIT DECK INFORMATION HANDOUT

BLD
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This information bulletin describes the minimum requirements for obtaining residential deck permits using the City of Encinitas standard plan, ICC approved plans, or other conventionally framed plans.

I. DEFINITION

- A. A deck is an open outdoor porch or platform (with or without a roof or canopy cover). Decks differs from a patio. A patio is a paved area situated on the ground (with or without a patio cover or canopy).
- B. Decks may be attached or detached to the primary or accessory structure and are permitted only as a structure that is accessory to residential dwelling units (such as one- or two-family dwellings, lodging houses, or to individual dwelling units in multiple dwelling-unit buildings).

II. WHEN IS A PERMIT REQUIRED?

A building permit is required for any residential deck that is more than 30 inches above grade. When a deck is greater than 30 inches above grade, safety railing is required. When safety railing is required or proposed, the height of the deck shall be measured to the top of the safety railing.

III. YOUR OPTIONS FOR PERMIT SUBMITTAL

Patio cover permits may be applied for electronically and obtained through the City's [Customer Self Service portal](#).

IV. PROJECT FEES

Plan check, permit, and inspection fees are charged at initial review.

V. DRAWINGS TO PROVIDE/FORMS TO COMPLETE

Plans must be drawn to scale and must be of sufficient clarity to indicate the location, size, nature, and extent of the work proposed. Be sure to clearly label all existing and proposed construction on the site plan and elevations.

Plans must show, in detail that the proposed work will conform to the provisions of the 2023 California

Building Code, Zoning Ordinances, and all other relevant laws, ordinances, rules, and regulations. Zoning information is available at the Development Services Department, 505 S. Vulcan Avenue, call (760) 633-2710, or visit the [website](#).

Plans are required and must include:

A. Site Plan

Before drawing the site plan, please contact the Planning Division at (760) 633-2710 for additional requirements regarding yard setbacks, and specific zoning overlay requirements.

Please contact Fire Prevention at (760) 633-2820 for additional requirements regarding Very High Fire Hazard Severity Zone, City of Encinitas Brush Management Zones, and other requirements.

You must include information on each of the following items on the site plan:

1. Name of owner.
2. Address and Assessor's Parcel Number where the deck is to be built.
3. Legal description of property.
4. North arrow and scale. (Suggested scale: 1-inch equals 20 feet).
5. Boundaries and dimensions of property.
6. Required and proposed setbacks shown and dimensioned. Indicate with a dashed line the building envelope created by the setback lines.
7. Callout and dimension of any portion of the structure that encroaches into any required setback.
8. A calculation of the required interior side yard area and/or required rear yard area (based upon required setbacks), divided by the area of the deck that will cover these yard areas. The deck shall not cover more than 50 percent of the required interior side or rear yards.
9. Names bordering streets and alleys (if applicable).

10. Depiction of existing site contours and all proposed grading.
11. Location and width of all easements. Private easements should be shown on the property's deed.
12. Location and dimensions of existing buildings, structures, retaining walls, paved parking, and driveways in relationship to the proposed deck. Include distance from property lines.
13. Location and dimensions of proposed deck.
14. Existing survey hubs, pipes and similar permanently installed property line identification.

B. Foundation and Framing Plans

Provide one of the following:

1. One copy of the City of Encinitas standard plan with the proposed footing sizes, rafter sizes, and beam sizes highlighted, OR
2. One copy of an International Code Council (ICC) approved plan from your material supplier, OR
3. One copy of any other plan. These plans should include a framing plan, foundation plan, elevations, cross-sections, and connection details.

C. Floor Plan

For decks adjacent to a residential building, include a floor plan and show the following information:

1. Use and dimensions of all rooms opening onto the deck.
2. Location and size of all windows and doors from those rooms.

D. Elevations

Accurately show all sides of the proposed finished patio cover/canopy consistent with the site plans and floor plans.

The lines of both the existing exterior grade and proposed finished grade (distinguished from one another) at the columns or supports. If no changes to the grade as both the existing and finished grade on the elevations. (Note: Height is measured from the grade (dirt), which excludes any hard surface above the grade such as sidewalks, pavement, etc. Please show the height dimensions accordingly).

The height of the structure and all applicable dimensions, measured from the lower of the existing grade or proposed finished grade. The height shall include any safety railings, handrails, etc.

E. Permit Application

All projects must be submitted electronically through the City's [CSS Portal](#).

Note: There are no exceptions to the Workers Compensation Insurance requirements. If the property owner is doing the construction work or is hiring a number of different contractors, a separate Owner-Builder Verification form must be signed by the owner before the permit can be issued. Owner authorization is required to be submitted with the permit submittal.

VI. ADDITIONAL REGULATIONS

- A. If deck posts are to be located less than 5'0" from the property line, and zoning regulations are permitting, the deck must one-hour fire-resistive wall extending to the underside of the deck sheathing within 5'0" to the property line side to provide fire protection. See Table R302.1(1) of the California Residential Code. A boundary survey is highly recommended prior to commencing any work approved as part of your permit.
- B. A deck which is cantilevered beyond 3'0" to the property line can project to within 24-inches of the property line if zoning regulations are permitting. Combustible projections less than 5'0" must be of one-hour fire-resistive or heavy timber construction. See Table R302.1(1) of the CRC.
- C. No fire protection is required for the common wall between the dwelling unit and deck as they fall under the same occupancy classification.
- D. All electrical wiring and equipment must comply with regulations for exterior installation.
- E. Smoke Alarms – Deck when attached to a house or when modifying the exterior wall of the house, smoke alarms within the house are

required per sections R314 of the California Residential Code (CRC).

- F. Patio covers and exterior overhangs located in the (VHFHSZ) Very High Fire Hazard Severity Zones must comply with Chapter 7A and meet Brush Management standards.
- G. Decks are considered an architectural projection and are subject to the requirements in Encinitas Municipal Code (EMC) 30.16.010.F.8:
 1. Decks may project a maximum of four feet into any required rear or side yard setback.
 2. The maximum height of the deck shall not exceed the maximum height for the zone for structures with a flat roof (measured from the lower of the existing or finished grade);
 3. Decks may project vertically and horizontally into the required side yard setback pursuant to the requirements in EMC Section 30.16.010.F.8.
 4. Detached decks shall comply with the requirements summarized in EMC Section 30.16.010.F.9.
 5. Additional requirements may apply if the project site is located within the Coastal Bluff Overlay Zone and/or Hillside/Inland Bluff Overlay Zone. Please contact the Planning Division at (760) 633-2710 or at planning@encinitasca.gov.

VII. CONSTRUCTION SPECIFICATIONS

Following are the minimum construction specifications for decks:

- A. The concrete mix for footings must meet a compressive strength of $f'c = 2,500$ psi minimum or the following proportions by volume:
 - 1 part Portland cement
 - 2 ½ parts sand
 - 3 ½ parts ¾-inch maximum-size gravel
 - 7 gallons of water maximum per sack of cement
- B. Lumber must be Douglas fir-larch No. 2 or better. All lumber must be grade-marked. Joists, girders, and posts may be required to be protected against decay and termites. See Section R317 of the California Residential Code for details. All posts must be a minimum of 4x4.
- C. The post anchorage and bracing details shown on the following sheets have been approved by the City of Encinitas for decks.
 1. Posts must be anchored at the lower end and must be braced at the upper end using either of the details shown in Figure 3. Decorative-type bracing may be substituted if the same resistance to lateral loading is provided.
 2. Post anchorage to footings may be accomplished with a standard approved post base installed per manufacturer's instructions. The footing must be adequate for the load applied. See Section VII below and Table 4.
- D. When it is desired to connect and support one side of the deck structure by attaching it directly to the house, the joist spacing and girder sizes may be as shown in Tables 1 and 3. However, the main girder may be replaced on the side attached to the dwelling unit with a ledger the same size as the joists or larger and fastened to the studs with two ⅝-inch diameter by 5-inch long lag bolts may be spaced at 32" maximum on center when the joist span does not exceed 8'-0".

If a ledger is not used, deck joists should be notched and placed directly on the bottom plate of the dwelling unit.
- E. Specify deck covering when submitting plans. Note that the panel span rating for plywood subfloor must be appropriate for the joist spacing (i.e., the second number in the panel span rating must be equal to or greater than the deck joist spacing called out in Table 1). Adequate drainage must also be provided.

VIII. INSPECTIONS

An Inspection Record Card is issued at the time the permit is obtained. The inspector signs the card as the construction is inspected and approved. The approved plans, the Inspection Record Card are important records and should be retained.

A permit is active for 180 days. Each inspection scheduled and passed extends the permit 180 days. Permits approaching expiration can be extended under special circumstances.

Inspections are required at the following times:

- A. When footings have been excavated but before concrete is placed,
- B. When ledgers are attached to an existing structure, and
- C. When work is complete.

Note: The project is not legally complete until there is an approved final inspection.

IX. TABLES

The tables provided are for simple span residential deck joists and girders, minimum pad footing sizes, and a nailing schedule.

The following assumptions have been made:

- 1. Deck live load is 60 psf, deck dead is 8 psf.
- 2. All lumber is to be Douglas fir- larch No. 2 or better with a minimum design stresses specific in the tables.
- 3. All posts are to be 4x4 minimum.
- 4. Soil bearing pressure is 1,500 psf minimum.

When the above assumptions do not apply to the proposed design, values in the tables must be adjusted.

X. GLAZING

Use of glass infill between balusters or guard railings shall comply with 2023 California Residential Code Section 308.4.4 Glazing in Guards and Railings.

TABLE 1 – ALLOWABLE SPAN FOR DEK JOISTS (FT. – IN.)^{1, 2, 3}

Species	Size	Spacing of Joists (inches)		
		12	16	24
Douglas fir – larch #2 or Redwood #1	2 x 6	6-9	6-2	5-1
	2 x 8	8-10	7-10	6-6
	2 x 10	11-2	9-7	7-10
	2 x 12	12-9	11-2	9-1

1. Live load = 60 psf, Dead load = 10 psf, $L/\Delta = 360$.
2. If joists within 8 inches of grade, use Pressure – Treated Douglas Fir – Larch or foundation – Grade Redwood.
3. Include incising factor ($C_i=0.8$)

TABLE 2 – CANTILEVER LENGTH FOR DECK JOISTS (FT. – IN.)^{1, 2, 5}

Size	Spacing (in.) ^{1, 2, 5}		
	12	16	24
2 x 6	1-0	0-10	0-9
2 x 8	1-7	1-6	1-5
2 x 10	2-5	2-2	2-0
2 x 12	3-2	2-10	2-3

1. Live load = psf, Dead load = 10 psf, $L/\Delta = 240$.
2. Beam cantilevers are limited to the adjacent beam's span divided by 4.
3. Joist spacing for diagonal decking shall not exceed 16 inches.
4. Cantilever span includes 220 pounds point load applied to end.
5. Solid blocking shall be provided between joists at the support.

TABLE 3 – DECK BEAMSBeam span lengths (ft. – in.)^{1, 2, 3, 4, 5, 6, 7}

Species	Size ⁽⁵⁾	Joist span less than or equal to: ⁽⁸⁾						
		6 feet	8 feet	10 feet	12 feet	14 feet	16 feet	18 feet
Douglas Fir – Larch #2 or Redwood #1	3 x 6 or 2 – 2 x 6	3-9	3-3	3-0	-	-	-	-
	3 x 8 or 2 – 2 x 8	4-9	4-3	3-9	3-5	3-2	-	-
	3 x 10 or 2 – 2 x 10	5-10	5-2	4-7	4-3	3-10	3-7	3-4
	3 x 12 or 2 – 2 x 12	6-10	5-11	5-3	4-10	4-6	4-3	4-0
	4 x 6	4-6	3-10	3-5	3-3	-	-	-
	4 x 8	5-11	5-2	4-7	4-3	3-10	3-9	3-5
	4 x 10	7-10	6-2	5-4	4-10	4-6	4-3	3-10
	4 x 12	8-2	7-1	6-4	5-8	5-3	4-10	4-7
	3 – 2 x 6	5-3	4-9	4-3	3-10	3-7	3-4	3-2
	3 – 2 x 8	6-9	6-0	5-3	5-0	4-7	4-3	4-0
	3 – 2 x 10	8-6	7-5	6-7	5-8	6-0	5-3	5-0
	3 – 2 x 12	9-10	8-6	7-8	7-0	6-5	6-0	5-8

1. Live load = 60 psf, Dead load = 10 psf, L/Δ = 360 at main span.
2. Beams supporting deck joists from one side only. See footnote (8) below for beams supporting cantilevered joists.
3. Beam depth shall be greater than or equal to depth of joists with a flush beam condition.
4. Beams within 8 inches of grade shall be Pressure-Treated Douglas Fir-Larch or Foundation – Grade Redwood.
5. Beams plies shall be fastened with two rows of 10d threaded nails or #10d nails at 16 inches on center along the edges.
6. Beams are permitted to cantilever not more than 1/4th of the span.
7. Include incising factor (ci = 0.8)
8. Beams supporting cantilevered joists:
To select a joist span from Table, use span length equal to joist span length + 125% cantilevered length.
(Example: Joist with 12 feet span & 3 feet cantilevered length, calculated joist span = 12' + 125% x (3') = 15.75' therefore, beam allowable span shall be based on 16 feet joist span).

TABLE 4 – DECK POST^{1, 2}

Post Size	Maximum Height ⁽³⁾
4 x 4	4'-10" ⁽⁴⁾
4 x 6	7'-0"
6 x 6	10'-0"
8 x 8	14'-0"

1. Deck loads: Live load = 60 psf, Dead load = 10 psf
2. Species: Douglas Fir-Larch #1, or Redwood #1
3. Measured to the underside of the beam.
4. Maximum permitted height is 5'-8" when supporting one and two-ply beams.

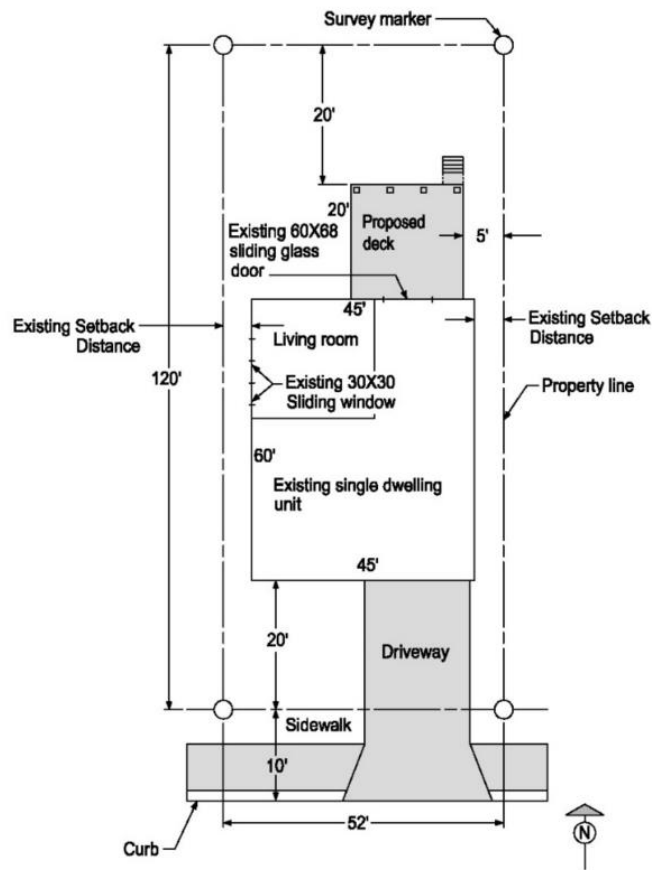
TABLE 5 – SQUARE FOOTING AT POSTS (INCHES)¹

Footing Dimensions	Tributary Area (sq. ft.) ³							
	20	40	60	80	100	120	140	160
Width (in.)	12	18	21	25	28	30	33	35
Depth (in.)	8	8	10	10	12	12	14	16

TABLE 6 – NAILING SCHEDULE FOR DECKS^{1, 3}

Connection	Nails or Screws (Box or Common)
Joist to Girder 2 inches nominal thickness spaced decking boards approximately 1/8" apart ⁽²⁾	3-8d common nails 2-8d threaded nails or 2 #8 screws

1. Decking within 8 inches of grade shall be Pressure-Preservative treated lumber or foundation – Grade Redwood.
2. Decking placement may range from an angle perpendicular to joists to an angle of 45° to the joists. Each segment of decking must bear on minimum of 3 joists.
3. All fasteners and connectors shall be hot-dipped galvanized or stainless steel.

FIGURE 1 – SAMPLE DECK SITE PLAN

Requirements for deck plot plan and partial floor plan.

One copy of a plot plan is required for a permit. Information on each of the following items must be included on the plot plan:

1. Name of owner.
2. Address and Assessor's Parcel Number where deck is to be built.
3. Legal description of property.
4. North arrow and scale. Suggested scale: 1-inch equals 20 feet.
5. Boundaries and dimensions of property.
6. Names of bordering streets.
7. Width of alley(s), if any.
8. Location and width of easements. Private easements should be shown on the property's deed.
9. Location and dimensions of existing buildings, structures, retaining walls, paved parking, and driveways. Include distance from property line.
10. Location and dimensions of proposed deck. Include distance to property line.
11. Location and spacing of all posts supporting deck.

FIGURE 2 – TYPICAL DECK

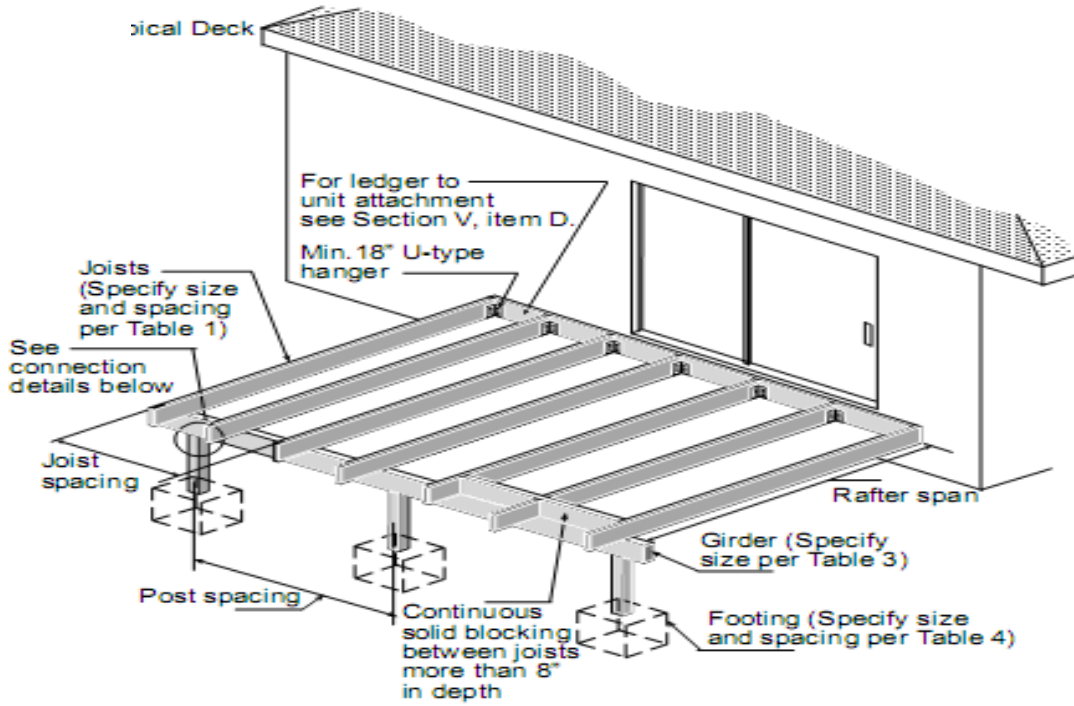
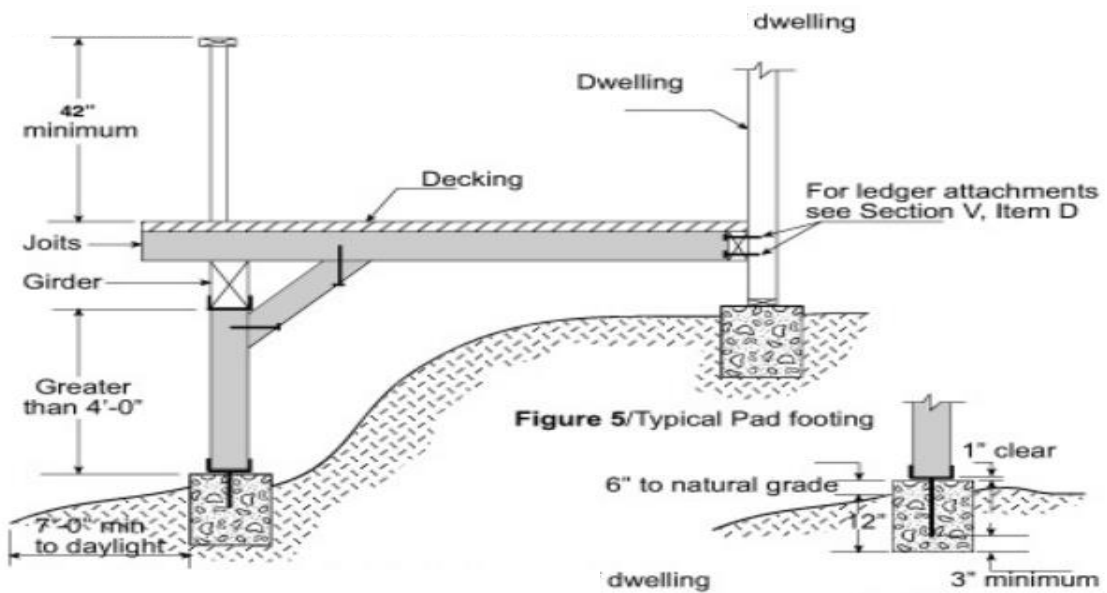


FIGURE 3 – TYPICAL DECK ELEVATION LOOKING PARALLEL TO REAR OF DWELLING



¹Assume 1500 psf soil bearing capacity.

²The minimum depth for all footings is 12 inches into natural grade.

FIGURE 4 – STRUCTURES ON OR ADJACENT TO SLOPES/FOUNDATION CLEARANCE FROM SLOPES

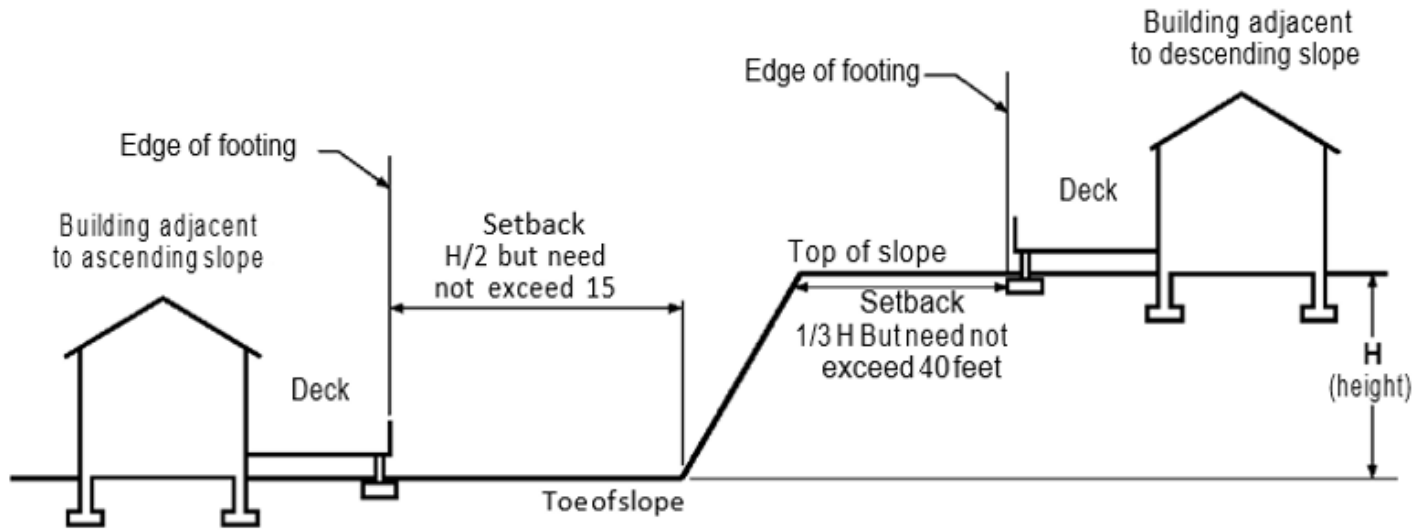


FIGURE 5 – POST-TO-GIRDER CONNECTION

Case1 / End Condition

Case2 / Interior Condition

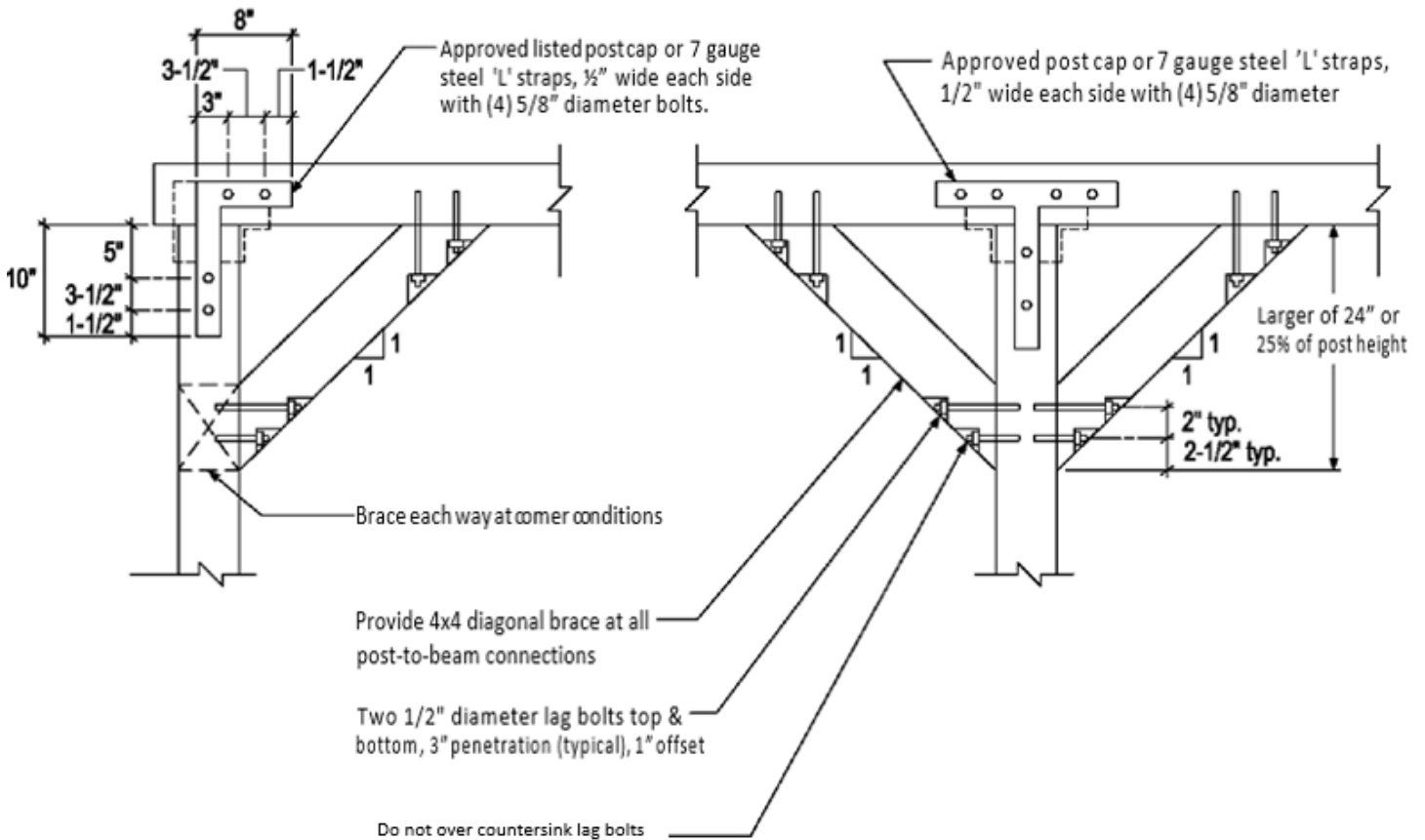


FIGURE 6 – TYPICAL DECK ELEVATION

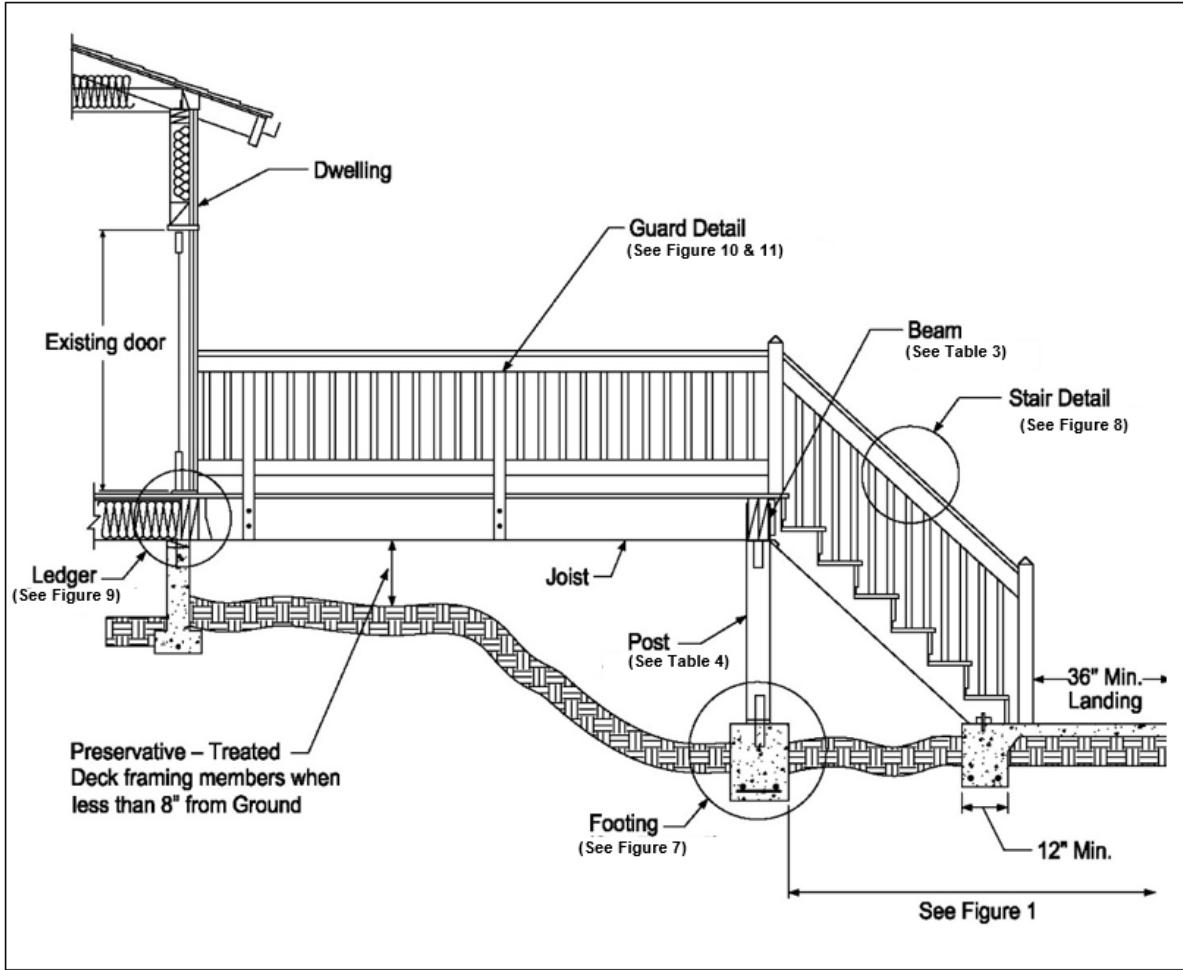


FIGURE 7 – TYPICAL FOOTING DETAIL

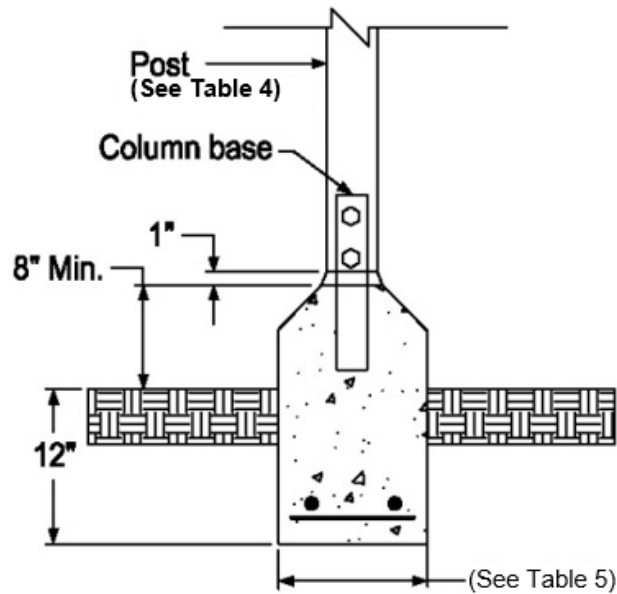
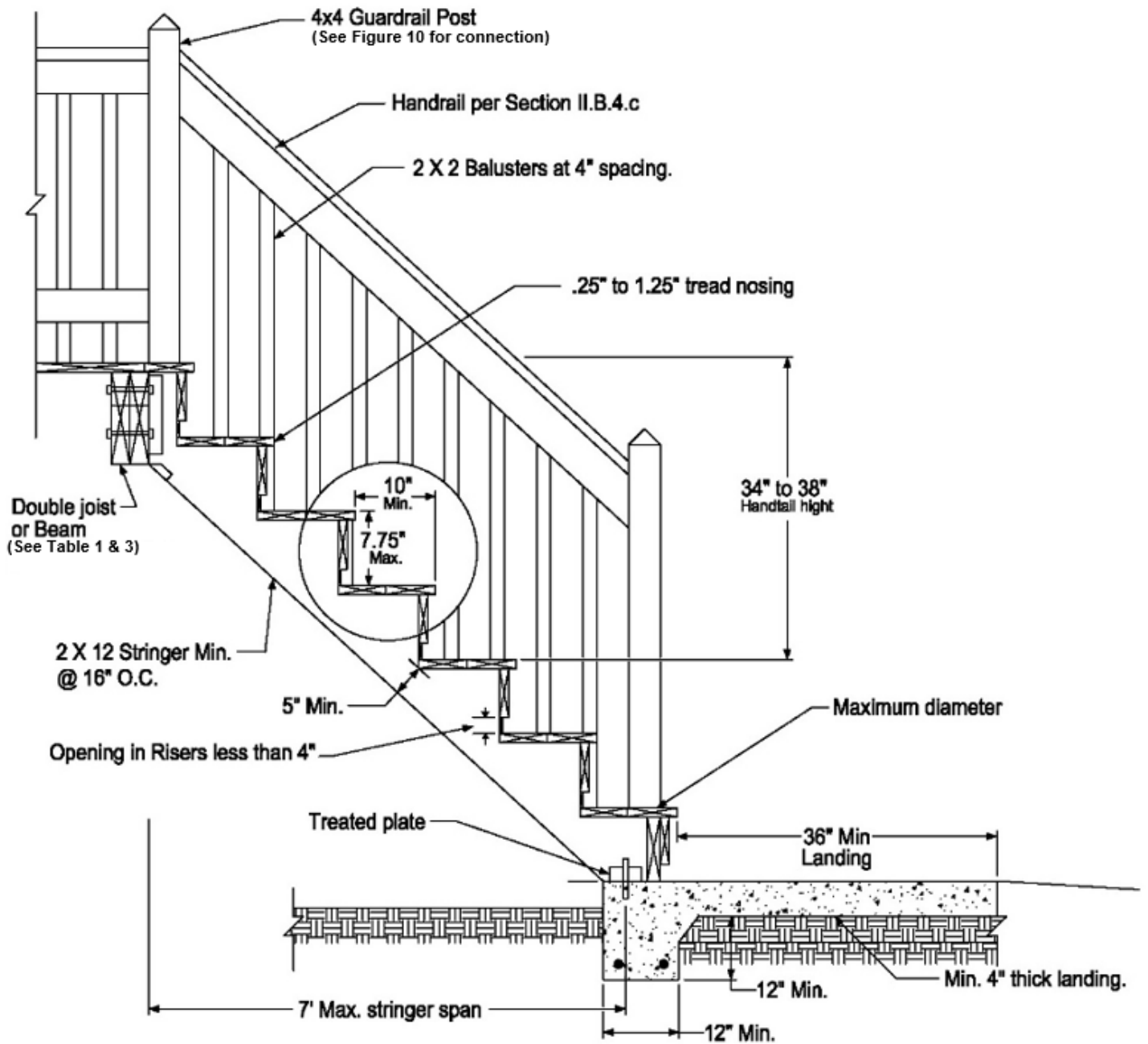
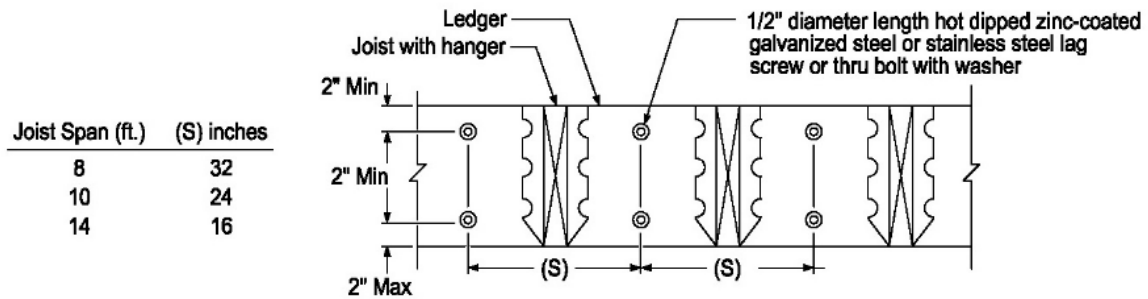
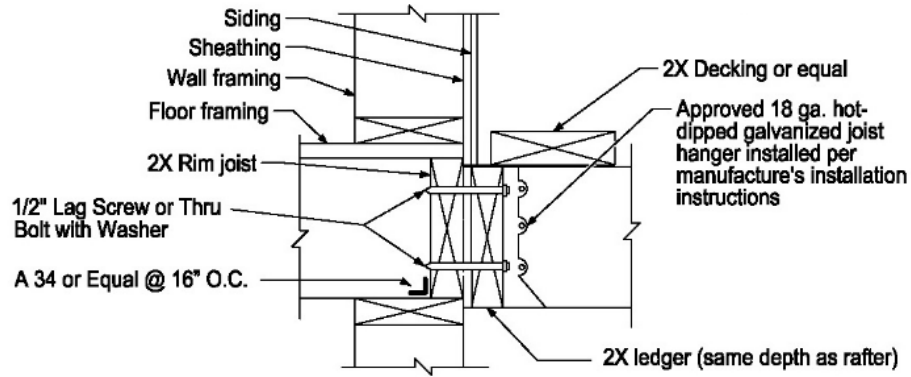


FIGURE 8 – TYPICAL STAIR DETAIL



**FIGURE 9 – TYPICAL LEDGER DETAIL
OPTION 1 – LEDGER TO RIM JOIST CONNECTION (ATTACHED DECK)**



OPTION 2 – RIM JOIST / BLOCKING AT STEM WALL (DETACHED DECK)

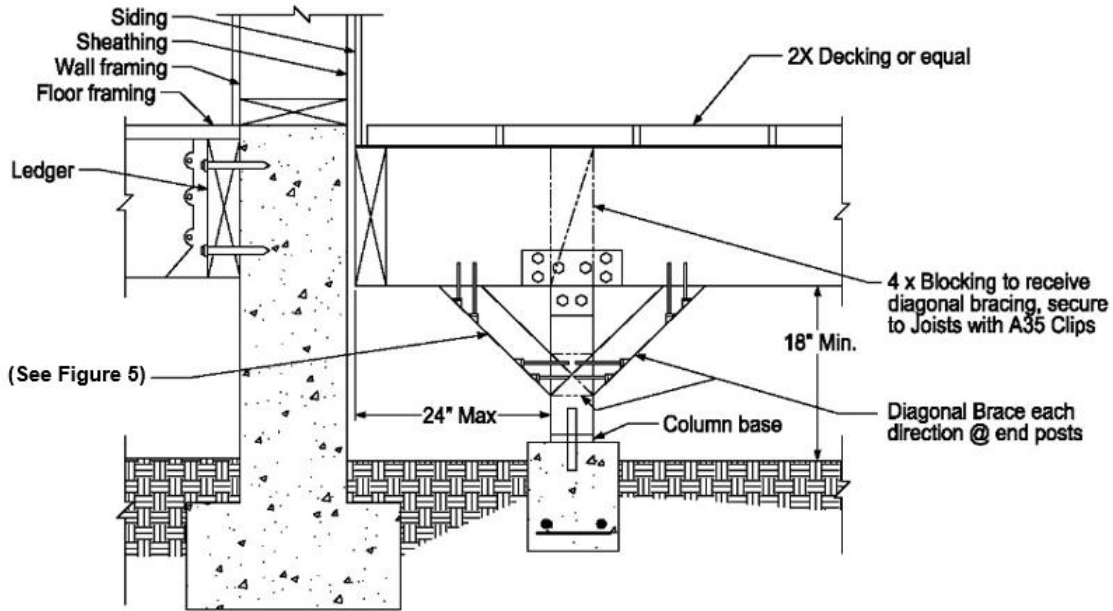
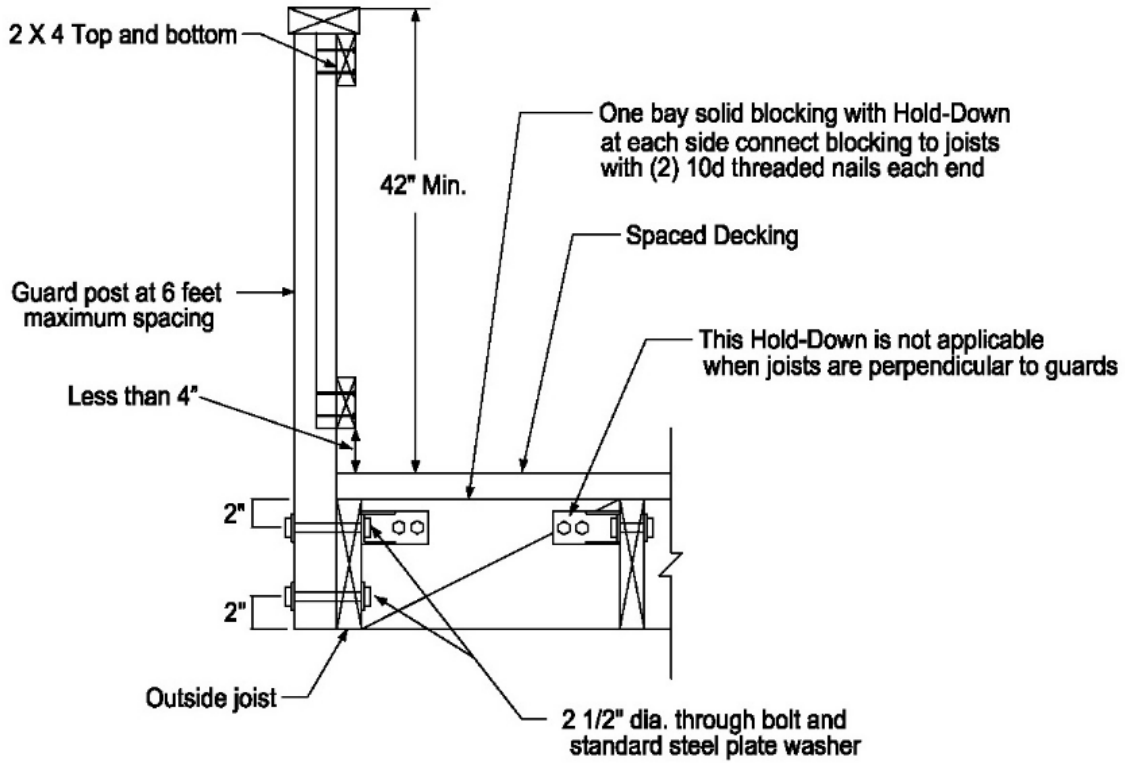
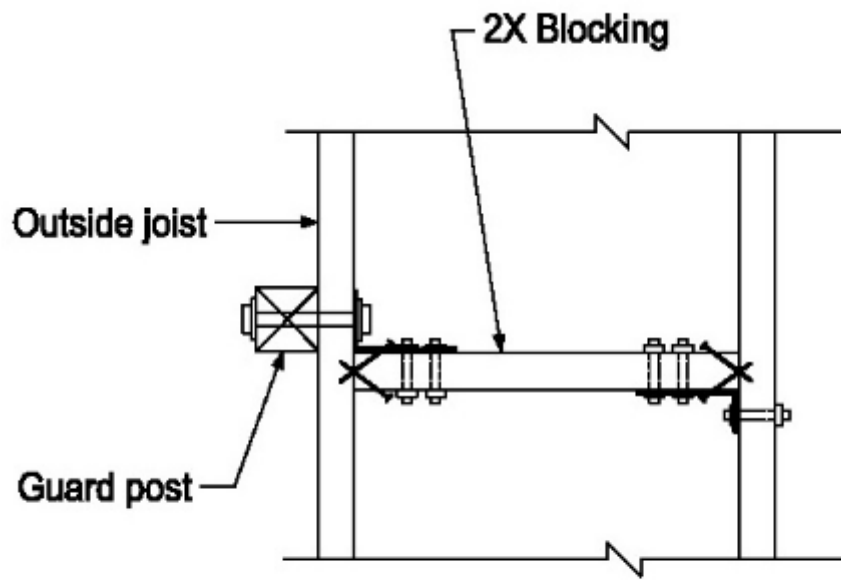


FIGURE 10 – TYPICAL GUARD DETAILS



SECTION



PLAN VIEW

FIGURE 11 – TYPICAL DECK ELEVATION

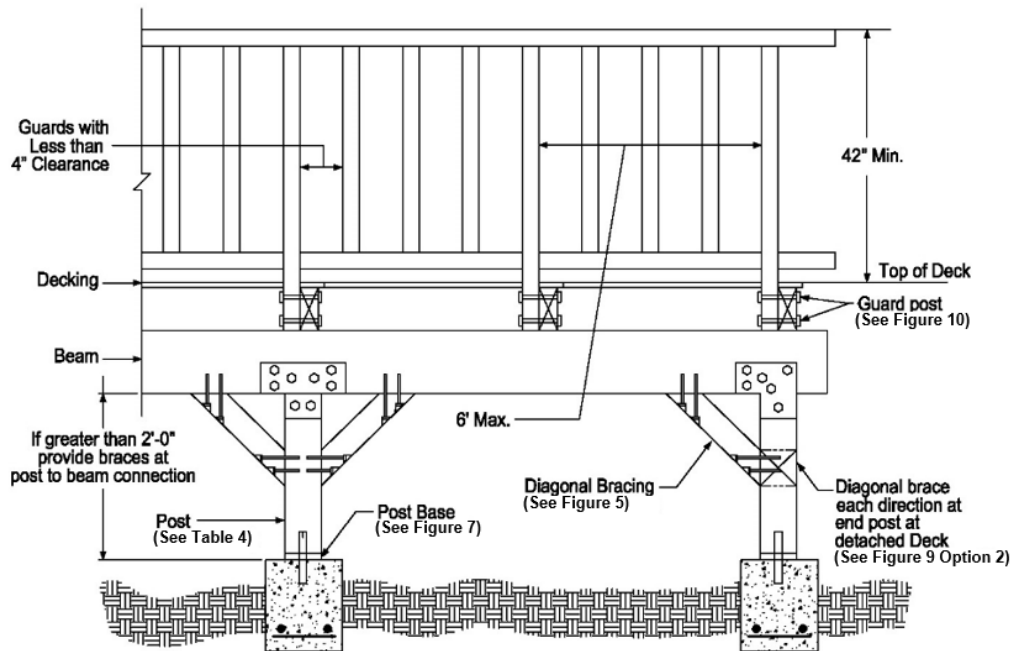


FIGURE 12 – DECK ATTACHMENT FOR LATERAL LOADS

Two locations for Hold-Downs is required. Place Hold-Downs maximum 24-inches from edge of deck

