

**CITY OF ENCINITAS**  
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# SPECIFICATIONS FOR PATIO COVERS

**BLD**  
**135**  
Sep 2023

This information guide describes the minimum requirements for obtaining patio cover permits for residential buildings using this information guide, International Code Council Evaluation Services (ICC-ES) reports or designed using conventional light-frame wood construction. For clarification of the permit process, visit the Development Services Department website.

## I. DEFINITION

- A.** A patio is a paved area situated on the ground (with or without a canopy cover).
- B.** Patio covers are one-story structures not more than 12 feet in height above the lower of the existing or grade, and used only for recreational, outdoor living purposes and not as carports, garages, storage rooms, or habitable rooms. For decks, please see the “Residential Decks” handout.
- C.** Patio covers 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).
- D.** Patio covers must be open on one or more sides. (CBC Appendix I Section 102 and 103).
  - 1.** Patio structures may extend over existing exterior wall openings.
  - 2.** Patio covers shall not be enclosed in any manner and shall remain open when exterior openings in an existing building provide access for emergency egress or rescue from sleeping rooms.
  - 3.** An enclosed patio structure is permitted if it covers exterior wall openings that only provide light and ventilation for the residents. (Planning/zoning criteria differs for enclosed versus unenclosed patio structures. Please discuss the details of your project design with Planning Division staff).
  - 4.** Openings surrounding patio covers may be enclosed by the following methods:
    - (a)** Insect screening,
    - (b)** Approved translucent or transparent plastic not more than 0.125 inches in thickness,
    - (c)** Glass conforming to the provisions of Chapter 24, or
    - (d)** Any combination of the noted methods.(Planning/zoning criteria differs for enclosed versus unenclosed patio structures. Please discuss the details of your project design with Planning Division staff).
- 5.** Means of egress conforming to the requirements of Chapter 10 are to be provided from the enclosed patio structure.
- 6.** Enclosure walls must have a clear height of not less than 6’-8” measured from the floor to the soffit of the supporting members.
- 7.** Enclosure walls may have any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65% of the area below a minimum of 6’-8” (2032 mm) of each wall, measured from the floor.
- 8.** Floor area whose walls are of open construction, such as trellis, sunscreen or lattice work, or partial wall where 50% or more of the total square footage of the vertical planes of the perimeter of the bulk floor area is open. Columns to support structure above shall not count toward this 50%, such that typical open building recess areas and patios are not counted as floor area.

## II. WHEN IS A PERMIT REQUIRED?

Patio cover structures that do not exceed 120 square feet of projected roof area may be

exempt from a building permit in single family residential zones. Building permits for any new patio cover, patio cover repair, or enclosure of an existing patio cover, will be required if any of the following conditions occur:

1. The patio structure is located on a site that contains environmentally sensitive lands.
2. The patio structure encroaches into any required side yards or established setbacks.
3. The property is located in the Coastal Zone, or any site regulated by a Planned Residential Development (PRD) permit.

Please telephone the Planning Division at (760) 633-2710, e-mail at [planning@encinitasca.gov](mailto:planning@encinitasca.gov), or visit the City's website [here](#) to verify if the proposed location is in one of these areas. There may be additional requirements for properties located within the Coastal Bluff Overlay Zone and Hillside/Inland Bluff Overlay Zone. Please consult with Planning Division staff.

Before the work is considered complete by the City of Encinitas, a final inspection must be approved.

### 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. 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 2022 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 must include:

#### A. Site Plan

Before drawing the site plan, 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 patio cover is proposed 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 patio cover canopy that will cover these yard areas. The canopy shall not cover more than 50% of the required interior side or rear yards.
9. Names of 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 patio cover. Include distance from property lines.
13. Location and dimensions of proposed patio.
14. Existing survey hubs, pipes, and similar permanently installed property line identification.

#### B. Foundation and framing Plans

Provide three copies if this information guide or (ICC-ES) evaluation reports approved plan available from your material supplier is used for the patio design.

If plans must be submitted because of customized design of the patio, provide three copies of plan documents. These plans should include a roof framing plan, foundation plan, evaluations, cross-sections, connection details, and structural calculations.

### **C. Floor Plan**

For patio covers within 6'-0" of a dwelling, shall include a floor plan and show the following information:

1. Use and dimensions of all rooms adjacent to the patio cover.
2. Size and type 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 are proposed, please call out 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).

### **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 several 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.

## **V. ADDITIONAL REGULATIONS**

**A.** This information guide recommends that all patio structures be located at least 5 feet from assumed or real property lines. A

boundary survey is highly recommended prior to commencing any work approved as part of your permit.

Additional requirements of the building code related to fire separation distance, opening protection and parapet requirements may also need to be addressed, based on the distance of the patio structure from real or assumed property lines. Such requirements include limitations on new and existing exterior wall openings of 25% of the wall area, fire protection ratings of supports and walls. Refer to CBC Tables 705.5 and 705.8.

- B.** No fire protection is required for the common wall between the dwelling unit and patio cover, as they fall under the same occupancy classification.
- C.** When existing wall openings are required for light and/or ventilation within the dwelling unit itself, and they open into a patio cover, the minimum ceiling height of the patio structure shall be 7'0" measured from the floor surface to the underside of the rafters. When no required openings exist in the common wall, the minimum required height for the patio cover may be 6'8". (CBC Appendix I Section 102).
- D.** All electrical wiring and equipment must comply with the regulations for exterior installations.
- E.** Patio covers may be located within a required side yard or rear yard, subject to the following requirements. (See Encinitas Municipal Code (EMC) Section 30.16.010.F.7).
  1. The patio structure shall not be located closer than 5 feet to any interior side yard and closer than 10 feet to the rear yard property lines. Patio covers are not permitted in the street side yard.
  2. The patio shall be open on at least three sides except for support columns.
  3. The height of the roof of the patio shall not exceed 12 feet (measured from the lower of the existing or finished grade).
  4. The canopy shall not cover more than 50% of the required interior side or rear yard.
  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](mailto:planning@encinitasca.gov).

- F. Patio covers located in the environmental sensitive lands and brush management zones must comply with Chapter 7A.
- G. Structures located in a Very High Fire Hazard Severity Zone or Brush Management Zones, governed by the City of Encinitas, may need to meet additional fire protection requirements.

## VI. CONSTRUCTION SPECIFICATIONS

Following are the minimum construction specifications for patio covers.

- A. The concrete mix for footings must meet a compressive strength of  $f'c=2,500$  psi minimum.
- 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. (CBC Section 2304.11).
- C. Post size is based on the height of the floor above the slab (at the highest point):
  - 0 to 8 feet high: 4x4 minimum
  - 8 to 10 feet high: 6x6 minimum
- D. The post anchorage and bracing details shown on the following sheets have been approved by the City of Encinitas for unenclosed patio covers.
  - 1. Posts must be anchored at the lower end and must be braced at the upper end using any 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 slabs may be accomplished with a standard approved post base installed per the manufacturer's installation instructions. The footing must be adequate for the load applied. See Section IX below and Table 1. When the load on supporting post does not exceed 750 pounds per posts, a minimum 3 ½-inch thick concrete slab-on-grade may be substituted for the pad footings shown on the typical framing details. (CBC Appendix I Section 105.2).
- E. When it is desired to connect and support one side of the patio cover structure by attaching it directly to the dwelling unit, the rafter spacing and beam sizes may be

shown in Table 2 and 3. However, the main beam may be replaced on the side attached to the dwelling unit with a ledger the same size as the rafters and fastened to the studs with 3/8"x5" lag screws spaced at 16" maximum on center. See Figure 7 and 8. Patio rafters may not be solely supported by the existing rafter tails or fascia of the house.

- F. The size of the existing headers at openings adjoining the proposed patio covers may need to be verified based upon the configuration of an existing building and the depth of the patio cover.
- G. Specify roof covering when submitting plans. If nominal one-half-inch thick roof sheathing is used, the roof may have rafters spaced not more than 24" on center. Patio covers constructed of light-transmitting plastics shall comply with Sections 2606 and 2609 of the California Building Code and to the manufacturer's installation instructions. The corrugations must be placed perpendicular to and across the supports. Roof systems shall be sloped ¼-inch in 12 inches for drainage.
- H. Framing hardware and fasteners shall be hot-dipped galvanized or stainless steel if in preservative-treated wood. (CBC 2304.10.6.1).

## VII. INSPECTIONS

An Inspection Record document is generated at the time the permit is obtained. The inspector signs this document as the construction is inspected and approved. The approved plans, the Inspection Record document, and the permit 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 the expiration can be extended under special circumstances. Please contact the Building Division for additional information at (760) 633-2730 or [building@encinitasca.gov](mailto:building@encinitasca.gov).

Inspections are required at the following times:

- A. When footing has 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.*

#### **VIII. TABLES**

Tables 1, 2, and 3 make the following assumptions:

Roof live load is 10 psf

Roof dead load is 7 psf

All lumber is to be Douglas fir-Larch No. 2 or better (repetitive member use):

$F = 900$  psi

$F^b = 180$  psi

$E^v = 1,600,000$  psi

Soil bearing pressure is 1,500 psf minimum.

If the above information differs, values in the tables must be adjusted.

#### **IX. PROJECT FEES**

Plan check, Permit, and Inspection fees are charged at initial review.

#### **Documents referenced in this information guide:**

- **2022 California Residential Code, (CRC)**
- **2022 California Building Code, (CBC)**

**Table 1 / Minimum Square Footing Sizes (Inches)\***

Post Spacing (Feet)	Rafter Span (Feet) <sup>1,2</sup>							
	6	8	10	12	14	16	18	20
4	S	S	S	S	S	S	S	S
6	S	S	S	S	S	S	S	S
8	12	12	12	12	12	14	14	14
10	12	12	12	14	14	14	16	16
12	12	12	14	14	16	16	18	18
14	12	12	14	16	16	18	18	20
16	12	14	14	16	18	18	20	20
18	12	14	16	18	18	20	20	22
20	14	14	16	18	20	20	22	24

\*See dimension "A" on "Figure 5"

<sup>1</sup> "S" Patio supported on a concrete slab on grade without footings

<sup>2</sup> Assume reinforcing bar size #4 top and bottom, rebar yield  $F_y=60$  ksi

**Table 2 / Minimum Rafter Sizes (Inches)**

Rafter Span (feet)	Rafter Spacing Center-to-Center (Inches) <sup>1,2</sup>			
	12 (5/16" plywood sheathing)	16 (11/32" plywood sheathing)	24 (1/2" plywood sheathing)	32 (5/8" plywood sheathing)
6	2x4	2x4	2x4	2x4
7	2x4	2x4	2x4	2x4
8	2x4	2x4	2x6	2x6
9	2x4	2x6	2x6	2x6
10	2x6	2x6	2x6	2x6
11	2x6	2x6	2x6	2x6
12	2x6	2x6	2x6	2x8
13	2x6	2x6	2x8	2x8
14	2x6	2x6	2x8	2x8
15	2x6	2x8	2x8	2x10
16	2x8	2x8	2x8	2x10
17	2x8	2x8	2x10	2x10
18	2x8	2x8	2x10	2x10
19	2x8	2x10	2x10	2x12
20	2x8	2x10	2x10	2x12

<sup>1</sup> Deflection base on L/360 (LL only)

<sup>2</sup> Load Duration Factor = 1.25.

**Table 3 / Minimum Beam Sizes (Inches)**

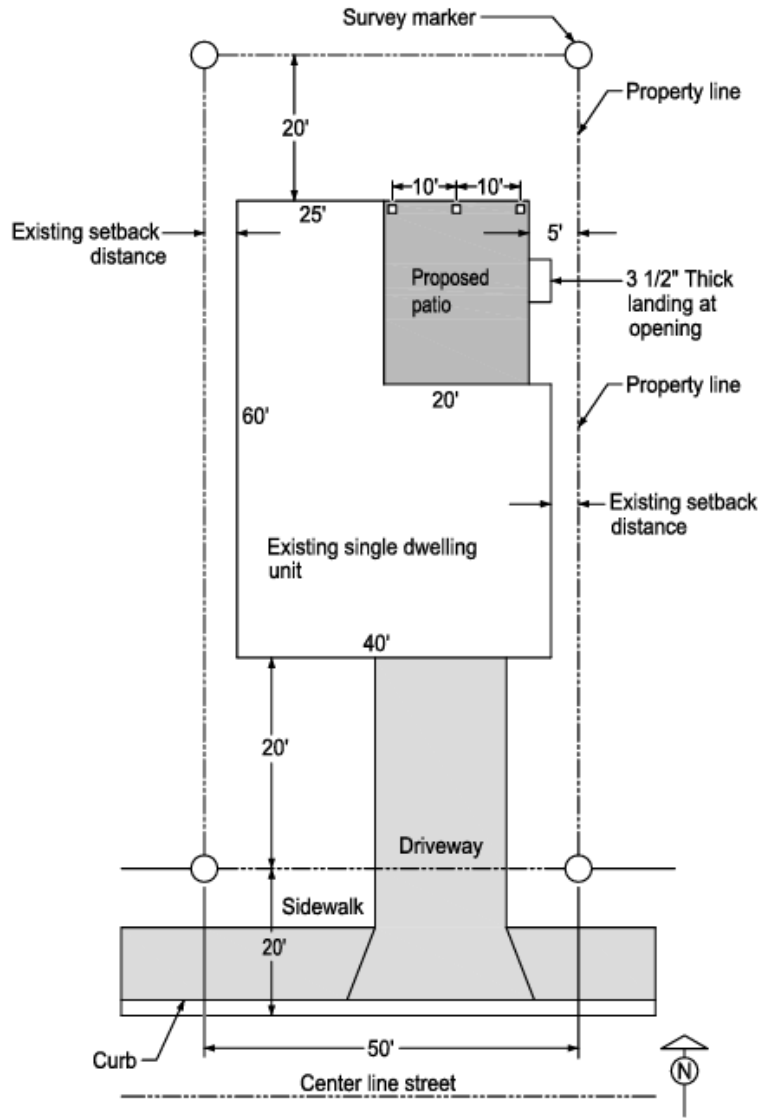
Post Spacing (Feet)	Span of Rafters (In Feet) <sup>1,2,3</sup>								
	4	6	8	10	12	14	16	18	20
4	4x4	4x4	4x4	4x4	4x4	4x4	4x4	4x4	4x4
6	4x4	4x4	4x4	4x4	4x4	4x4	4x4	4x4	4x6
8	4x4	4x4	4x6	4x6	4x6	4x6	4x6	4x6	4x6
10	4x4	4x6	4x6	4x6	4x6	4x6	4x8	4x8	4x8
12	4x6	4x6	4x6	4x8	4x8	4x8	4x8	4x8	4x10
14	4x6	4x8	4x8	4x8	4x8	4x10	4x10	4x10	4x10
16	4x8	4x8	4x8	4x10	4x10	4x10	4x12	4x12	4x14
18	4x8	6x8	6x8	6x8	6x8	6x10	6x10	6x10	6x10
20	4x8	4x8	4x10	4x10	4x10	4x12	4x12	4x14	4x14
	6x8	6x8	6x8	6x8	6x10	6x10	6x10	6x12	6x12
	6x8	6x8	6x10	6x10	6x10	6x12	6x12	6x12	6x14

<sup>1</sup> If joists are within 18 inches of grade, use pressure-treated. Douglas fir-larch or Foundation-Grade redwood.

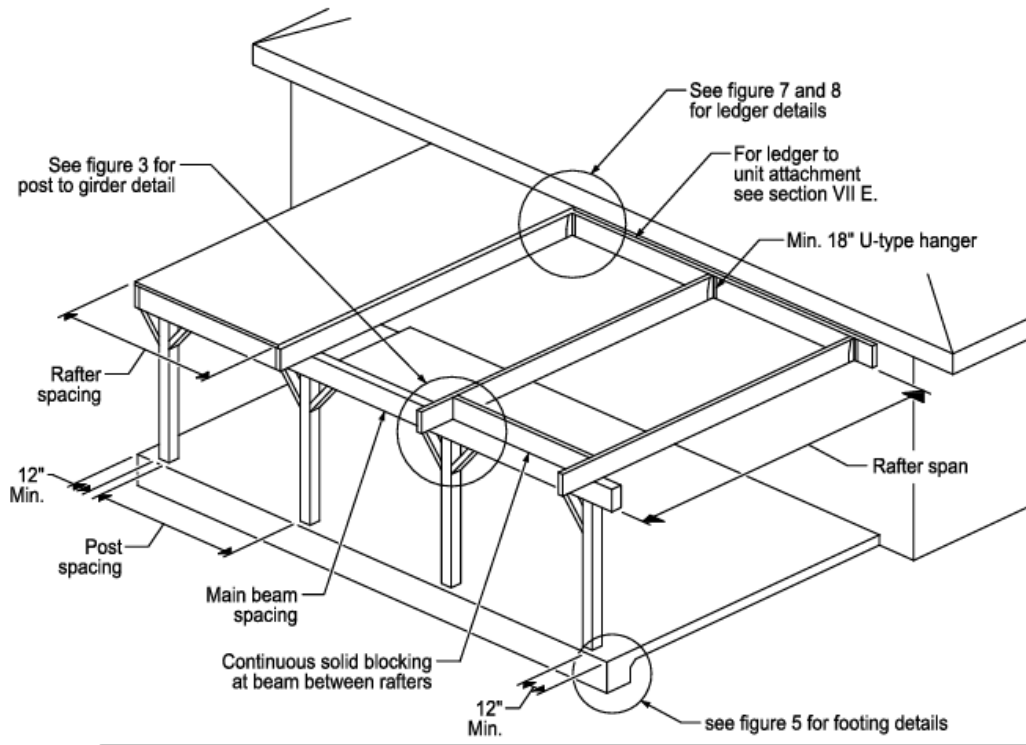
<sup>2</sup> Deflection base on L/360 (LL only)

<sup>3</sup> Load Duration Factor = 1

Figure 1 / Sample Patio Site Plan



**Figure 2 / Typical Patio**

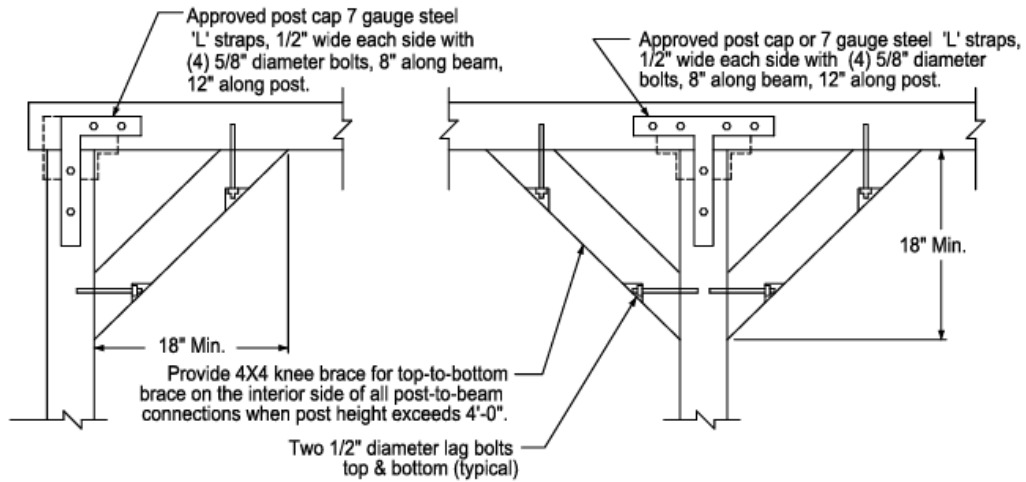


WOOD PATIO COVERS IN AREAS WITHIN VERY HIGH FIRE HAZARD SEVERITY ZONES OR CITY OF SAN DIEGO BRUSH MANAGEMENT ZONES MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS

**Figure 3 / Post-to-Girder Connection**

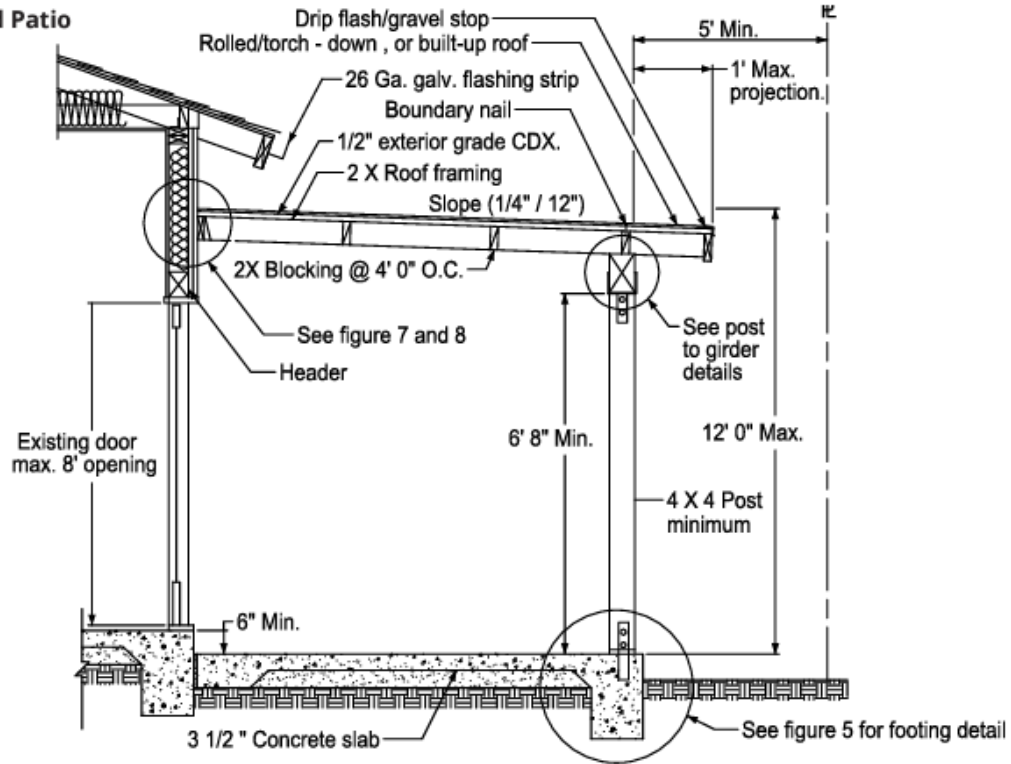
**Case 1 / Connection, Interior Condition**

**Case 2 / Interior Condition**

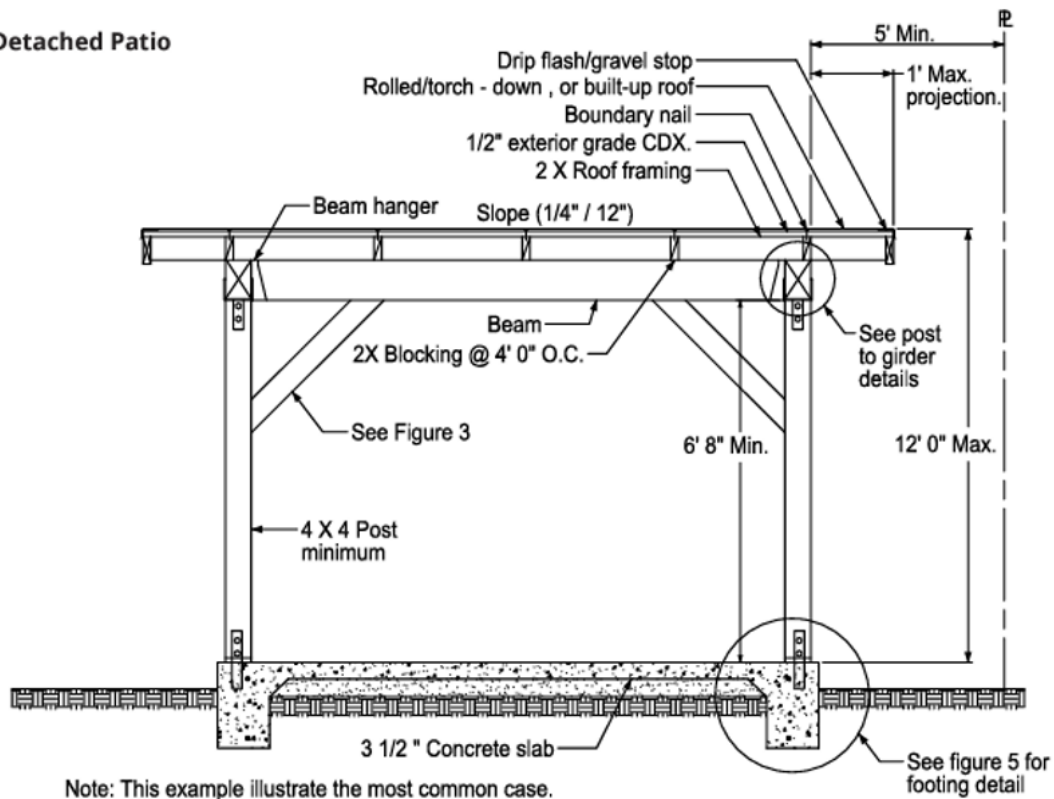




**Figure 4/ Section View of Patio**  
**A / Attached Patio**



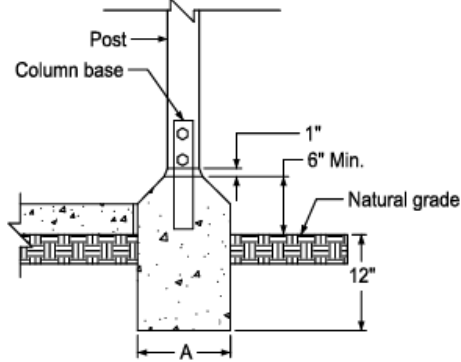
**B / Detached Patio**



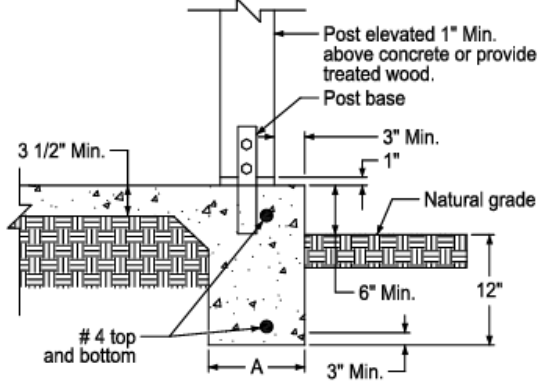
**WOOD PATIO COVERS IN AREAS WITHIN VERY HIGH FIRE HAZARD SEVERITY OR CITY OF ENCINITAS BRUSH MANAGEMENT ZONES MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS**

**Figure 5 / Typical Footing Details**

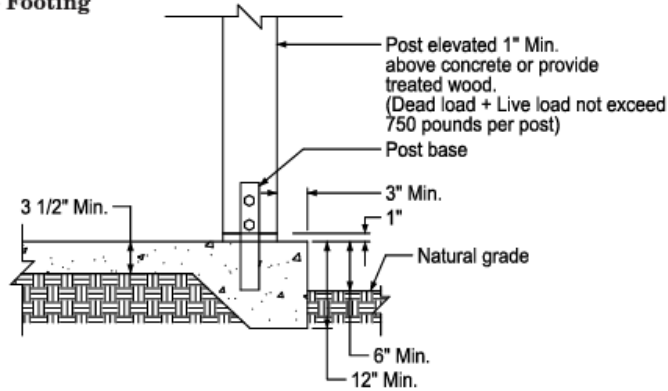
**Case 1 / Pier Footing**



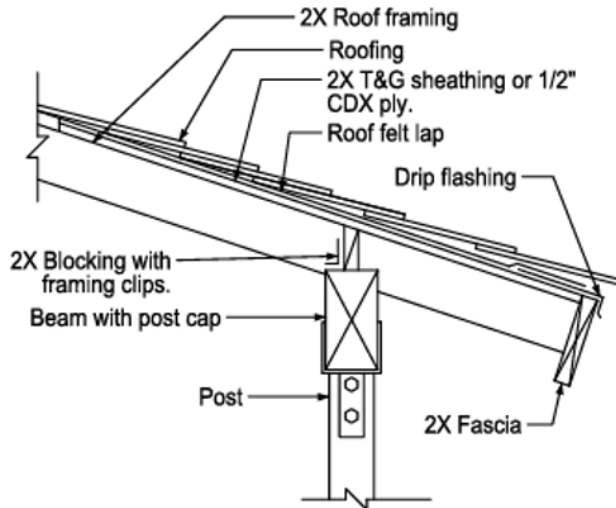
**Case 2 / Continuous Footing**



**Case 3 / Slab Footing**



**Figure 6 / Typical Eave Detail**



**WOOD CARPORTS IN AREAS WITHIN VERY HIGH FIRE HAZARD SEVERITY OR CITY OF ENCINITAS  
BRUSH MANAGEMENT ZONES MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS**

Figure 7 / Typical Rafter Attachment Details

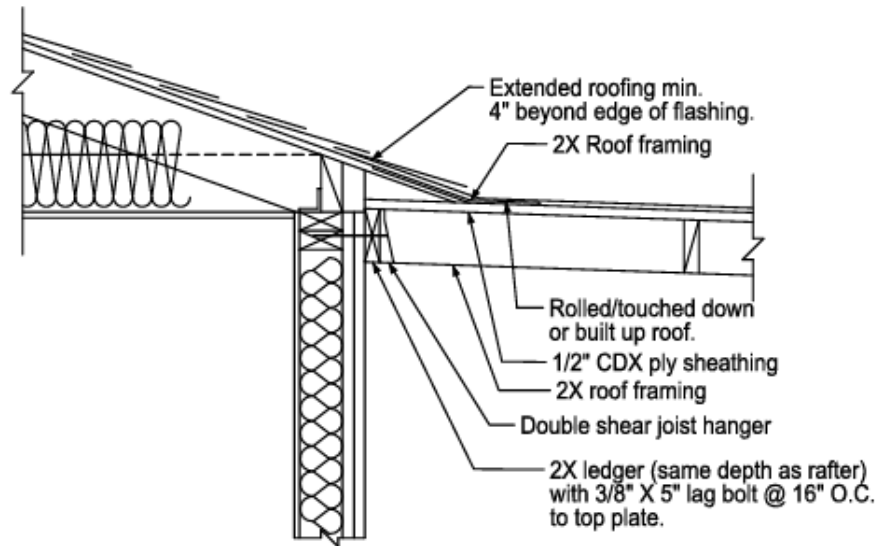
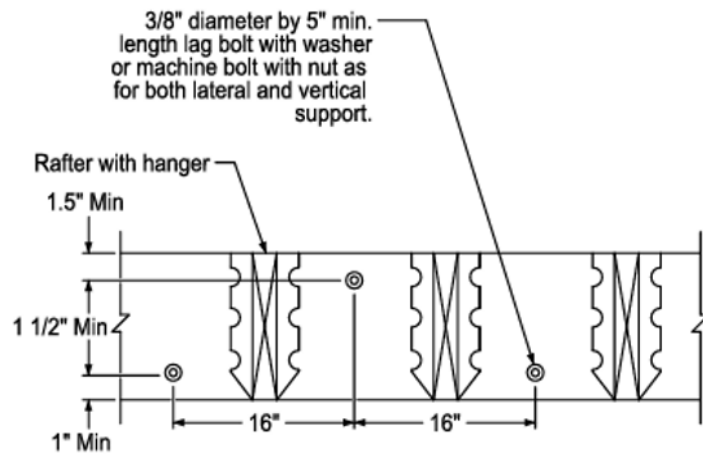


Figure 8 / Typical Ledger Details



WOOD PATIO COVERS IN AREAS WITHIN VERY HIGH FIRE HAZARD SEVERITY OR CITY OF ENCINITAS BRUSH MANAGEMENT ZONES MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS