

**BUILDING PERMIT REQUIREMENTS FOR:
LATTICE PATIO COVER**

5 lb. dead load

**INFORMATION
GUIDELINE**

8A

January 2014

CITY OF ESCONDIDO • BUILDING DIVISION • 201 N. BROADWAY, ESCONDIDO, CA 92025 • (760) 839-4647

PLEASE COMPLETE THE ITEMS BELOW AND READ THE GENERAL NOTES

Job Address _____ Owner _____

Patio Dimensions: Length _____ Width _____ Total Square Feet _____

Smoke Detectors/Alarms in Residence: Yes No (If no, see General Note #5)

Fire Severity Zone: Yes No **(IF YES, ALL LUMBER SHALL BE FIRE-RETARDANT TREATED)**

Inspection Requests: (760) 839-4646 (24-hr. recorder) Building Inspectors: (760) 839-4647

Inspector's Phone Hours: 8:00-8:30 a.m. and 4:00-5:00 p.m., Mon.-Fri.

Upon permit issuance, this Guideline will serve as your approved plan.

Permit Validation: _____

GENERAL NOTES

1. To expedite the permit process, please circle or highlight the appropriate rafter, beam and footing sizes on Tables I, II, III or IV.
2. Construction of a patio cover by any method other than those outlined herein is required to be designed and must be submitted for plan check.
3. Lattice covers are not to be enclosed. Please refer to Information Guideline #12 for patio enclosures.
4. If a combination lattice and solid patio cover is to be constructed, please refer to Information Guideline #8B.
5. Section 310.9.1.2 of the California Building Code states that: *"When the valuation of an alteration to a Group R Occupancy exceeds \$1,000.00 and a permit is required, smoke alarms shall be installed in the existing building."* The smoke alarms may be battery operated.

LOCATION

Except for allowed overhang, no patio cover may encroach into the required setbacks. Contact the Planning or Building Division for setback requirements.

CONCRETE

Foundation concrete shall consist of 1 part cement, 3 parts sand and 4 parts gravel, volumetric measure, with not more than 7-1/2 gallons of water per sack of cement (min. f_c 2,000 psi at 28 days).

LUMBER

Structural lumber shall be Douglas Fir Larch No. 2 or better. All lumber shall be grade marked. If redwood or cedar are to be used in place of Douglas Fir/Larch No. 2, they must meet or exceed Douglas Fir Larch No. 2 specifications.

FOUNDATION

1. A 3-1/2 inch minimum thick concrete slab may be used as a foundation if the lattice cover does not exceed 2 inch x 4 inch nominal lumber spaced at least 50% open. (Assume max. 750 lb. load per post.)
2. If the lattice exceeds the above limits or any columns are remote from the slab, use Table III to determine the required footing size.

POST ANCHORAGE AND BRACING

The support posts are to be anchored at the lower end by any method shown in details A through E. The post is to be braced at the upper end by any method shown in details F through I.

DESCRIPTION OF LATTICE PATIO COVER

A lattice patio cover is an un-enclosed, one-story structure not more than 12 feet above grade used only for outdoor recreational purposes and is considered an alteration to the existing structure to which it is attached. It is open on one or more sides with a clear height, of not less than 6 ft. 8 in from the floor to the soffit of the supporting members, the roof covering is self-spaced wood members (50% open). The cover is attached to and permitted as an accessory to a single-family dwelling, a single-family dwelling unit in a multi-dwelling unit building or to a residential garage. Patio covers shall not to be used as a carport, garage, storage or habitable room.

BUILDING ATTACHMENT

The patio cover must be attached to the existing structure by one of the following three methods:

1. The rafters of the cover may be attached directly on top of the double top plates of the existing structure or
2. Attach the rafters to the fascia of the existing overhang or
3. Attach the rafters to a ledger that is attached to the structure. Refer to attachment details J through M.

ATTACHMENT TO FASCIA

The following items must be considered when attaching to the fascia.

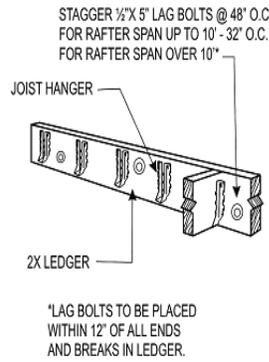
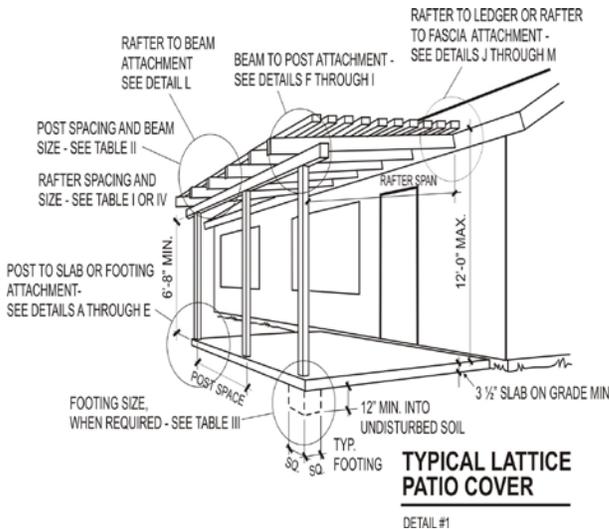
1. 2 x rafter, open lattice, patio covers are limited to a 12'-0" rafter span when supported by a fascia.
2. The fascia and overhang must be of sound materials capable of supporting the loads imposed.
3. Typically, a maximum 24" roof overhang will support an open lattice patio cover.

LATTICE COVERING

The lattice covering shall consist of wood members applied perpendicular to the supporting members. The maximum dimension for wood lattice is 2 inches x 4 inches, nominal, self-spaced (50% open). Rectangular shaped wood may be attached with either the wide or the narrow surface to the top of the rafters.

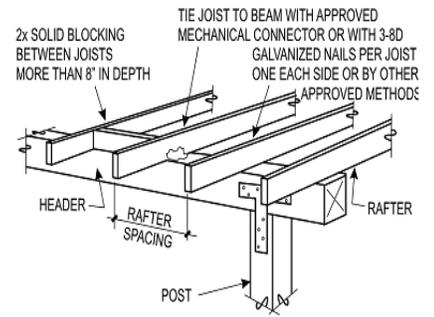
INSPECTIONS

1. No inspection is required for a 3-1/2 inch minimum thick concrete slab on grade. When footings are required, an inspection and approval of the excavated footings, prior to placing concrete, is required.
2. A final inspection shall be requested and approved when all work is complete.
3. The approved plans and inspection card must be on the job for the inspector.



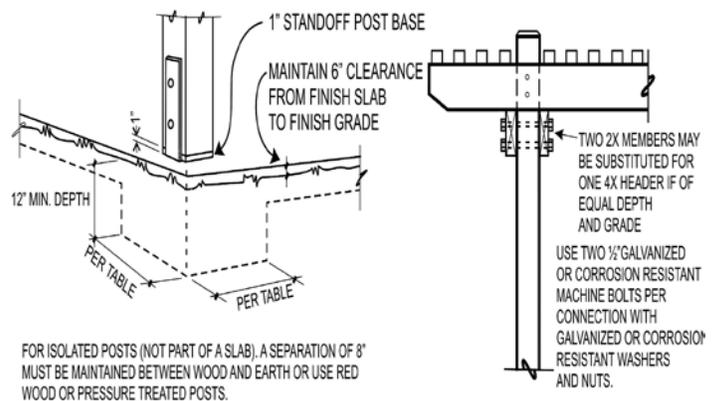
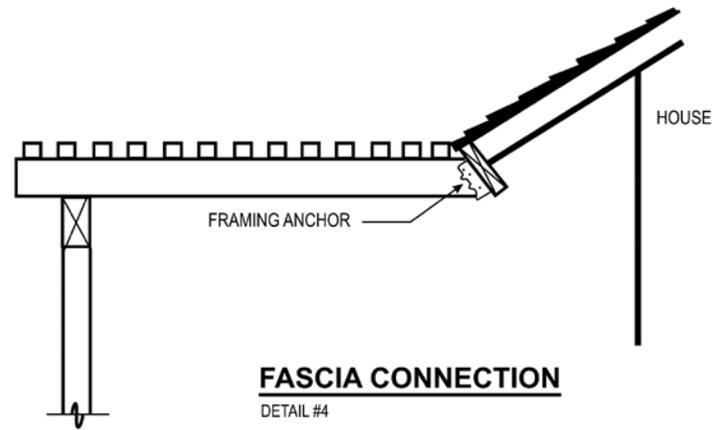
CONNECTION TO BUILDING

DETAIL #2



RAFTER TO BEAM CONNECTIONS

DETAIL #3



POST BASE CONNECTION

DETAIL #5

ALTERNATE BEAM AND CONNECTION

DETAIL #6

Lattice Patio Cover 8A

TABLE 1 Minimum Rafter Sizes (Inches)

Rafter Span (Feet)	Rafter Spacing Center-to-Center (Inches)			
	12	16	24	32
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

*Due to the possible deflection of 2 x 4 rafters at longer spans, 2 x 6 rafters are recommended.

Table III Minimum Square Footing Sizes (Inches)

Post Spacing (Feet)	Rafter Span (In Feet)							
	6	8	10	12	14	16	18	20
4	12	12	12	12	12	12	12	12
6	12	12	12	12	12	12	12	14
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

NOTES:

1. Footings to extend 12" into undisturbed soil.
2. Please indicate appropriate rafter, beam and footing size with a circle or by highlighting the appropriate spacing and span numbers on each chart.
3. When Fire-retardant treated lumber is used it shall be the same size as required for un-treated lumber.

Table II Minimum Beam Size (Inches)

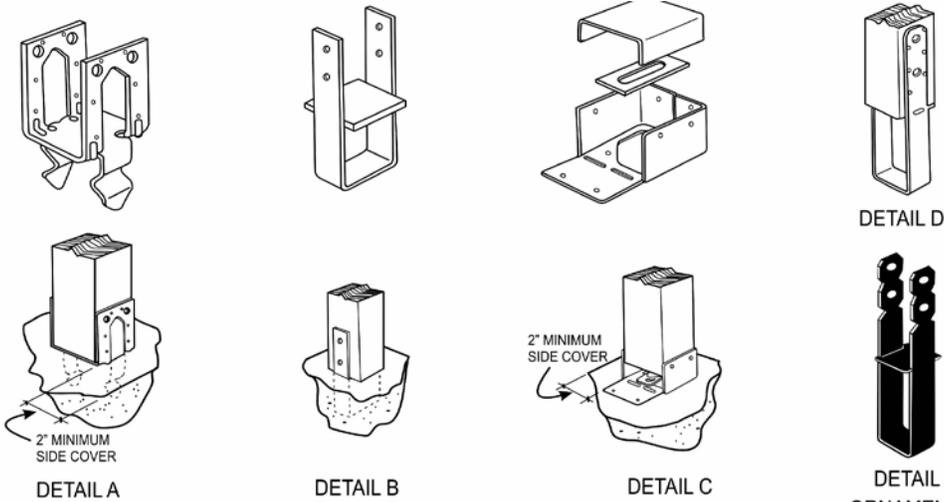
Post Spacing (Feet)	Rafter Span (In Feet)							
	6	8	10	12	14	16	18	20
4	4x4	4x4	4x4	4x4	4x4	4x4	4x4	4x4
6	4x4	4x4	4x4	4x4	4x4	4x4	4x4	4x6
8	4x4	4x6						
10	4x6	4x6	4x6	4x6	4x6	4x8	4x8	4x8
12	4x6	4x6	4x8	4x8	4x8	4x8	4x8	4x10
14	4x8	4x8	4x8	4x8	4x10	4x10	4x10	4x10
16	4x8	4x8	4x10	4x10	4x10	4x12	4x12	4x14
18	4x8	4x10	4x10	4x10	4x12	4x12	4x14	4x14
20	4x10	4x10	4x12	4x12	4x14	4x14	4x14	4x14

Table IV 4 x Rafters

Maximum Span (Feet)	Maximum Spacing Center to Center (Inches)	
	32	48
8	4x4	4x4
9	4x6	4x6
10	4x6	4x6
13	4x6	4x8
15	4x8	4x8
17	4x8	4x8
20	4x8	4x10

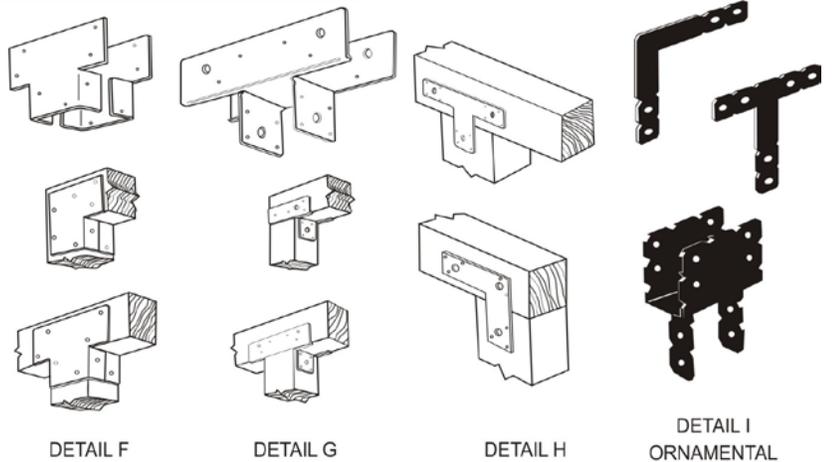
NOTES for Table IV:

1. 4x rafter span is limited to 8'-0" maximum span when supported by a fascia.
2. Possible deflection may be noticeable when a 4 x 6 rafter spans 14 feet at 48-inch spacing.



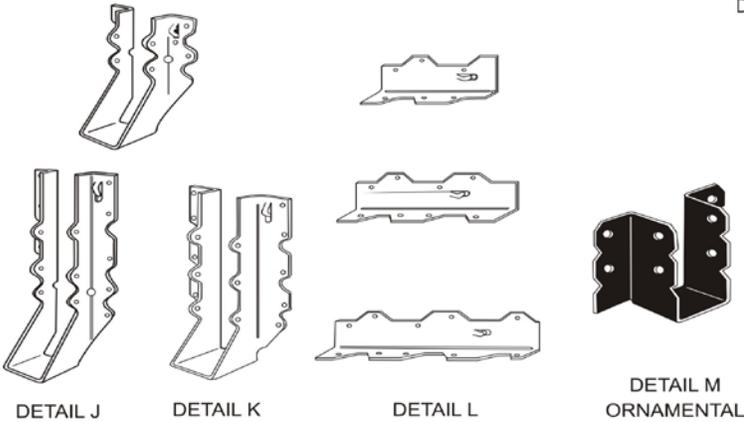
COLUMN / POST BASE DETAILS A-E

SCALE : 1/2" = 1'-0"



COLUMN / POST CAPS DETAILS F-I

SCALE : 1/2" = 1'-0"



RAFTER CONNECTION

DETAILS J-M

NOTES:

1. Use manufacturer's specified fasteners per listing.
2. All bases, caps and connectors are to be approved and listed products.
3. All bases, caps and connectors will be galvanized or coated with a corrosion resistant paint.