

	BUILDING PERMIT REQUIREMENTS FOR: <h1>CARPORT</h1> 20 lb. live load 10 lb. dead load	INFORMATION GUIDELINE <h1>8C</h1> 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 _____

Carport Dimensions: Length _____ Width _____ Total Square Feet _____

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

Inspector's Phone Hours: 8:00-8:30 AM and 4:00-5:00 PM, Mon.-Fri.

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

High or Very High Fire Severity Zone: YES _____ No _____

Permit Validation: _____ Roof Covering: _____

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 carport by any method other than those outlined herein are required to be designed and must be submitted for plan check.
3. Carports are not to be enclosed. Carports are to remain entirely open on any two or more sides with no enclosed uses above.

DESCRIPTION OF CARPORT

A carport is a one-story structure not more than 1,000 square feet in area and used for parking of private vehicles, and is considered an alteration to the existing structure to which is it attached. It is open on at least two sides with a clear height, from the floor to the soffit of the supporting members, of not less than 7 ft. 0 in. and a minimum height of 7 feet to the bottom of the rafters. The roof covering will consist of solid sheathing with an approved roofing material applied per manufacturer's specifications. The carport is attached to and permitted as an accessory to a single-family dwelling, a duplex or to a residential garage. Carports shall not be used as a habitable room or storage for Class I, II or III-A liquids.

LOCATION

Except for allowed overhang, carports shall not encroach into the required setbacks. Contact the Planning or Building Division for post setback and overhang 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). Floor surfaces shall slope toward the carport vehicle entrance.

LUMBER

Structural lumber shall be Douglas Fir or Larch No. 2 or better. All lumber shall be grade marked.

FOUNDATION

1. Carport footings are to be sized per Table III.
2. All footings are to extend 12 inches into undisturbed soil or a minimum of 90% compacted fill. Soil bearing pressure assumed at 1000 psf

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.

BUILDING ATTACHMENT

A minimum of one side of the carport shall be attached to the existing structure. One of the two methods described below shall be used:

1. The rafters of the carport may be attached directly on top of the double top plates of the existing structure or
2. Attach the rafters to a ledger that attached to the structure. Refer to Details J through M.

ROOF AND COVERING

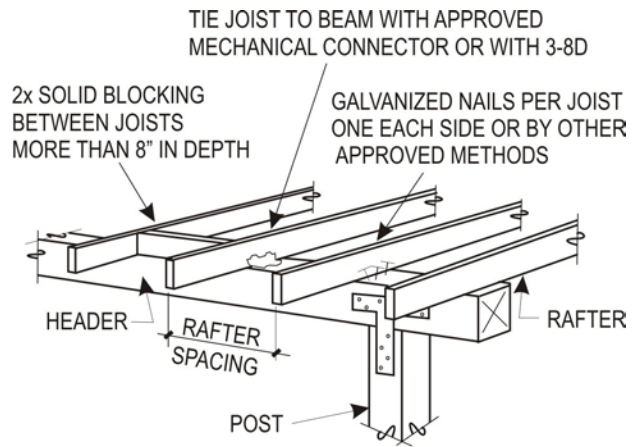
The minimum slope for a carport roof is 1/4 inch in 12 inches. Rafter and beam sizes and spacing are determined by Tables I and II. The roof sheathing shall consist of solid lumber of standard dimensions, plywood or OSB board applied perpendicular to the rafters with an approved covering applied per manufacturer's installation instructions. Roof sheathing spans will be determined by our SPAN TABLES (Information Guideline No. 17) for nominal 1-inch lumber and Table No. R503.2.1.1(1), from the California Residential Code, for plywood (Information Guideline No. 5). Roof Covering per Chapter 9 CRC.

INSPECTIONS

1. A foundation inspection is required after excavation of footings and prior to placing concrete.
2. A ledger and roof sheathing inspection
3. A final inspection shall be requested and approved when all work is complete and weather-protected.
4. The approved plans and inspection card must be on the job for the inspector.

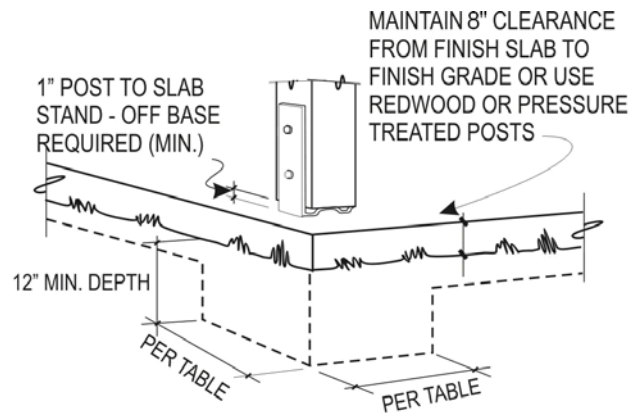
CURB CUTS

Cutting a curb, closing an existing curb cut or paving a driveway on public property requires an Encroachment Permit. Please contact Field Engineering at 760-839-4664.



RAFTER TO BEAM CONNECTIONS

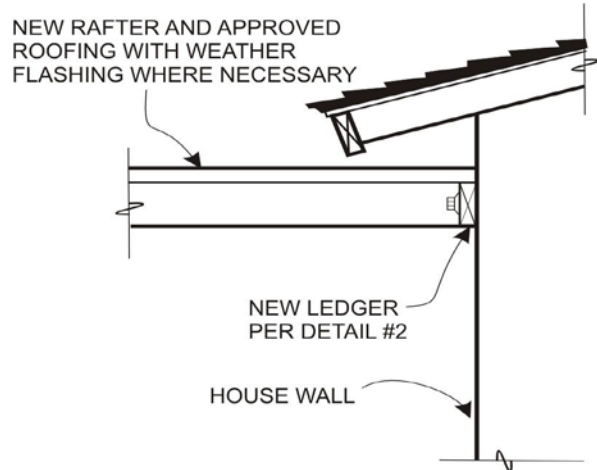
DETAIL #3



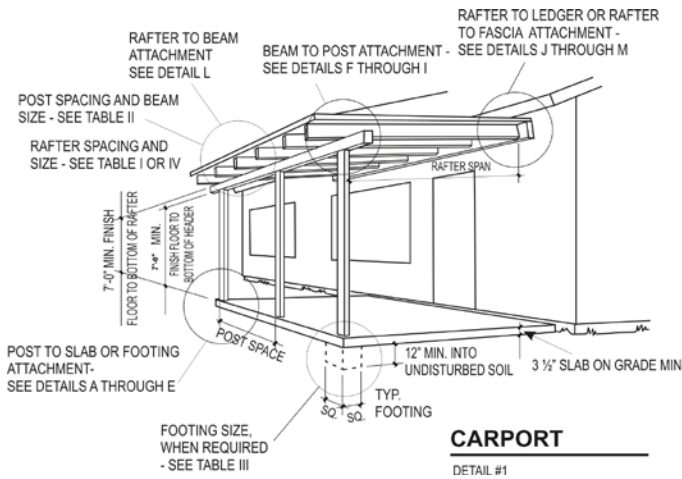
FOR ISOLATED POSTS (NOT PART OF A SLAB), A SEPARATION OF 8" MUST BE MAINTAINED BETWEEN WOOD AND EARTH OR USE RED WOOD OR PRESSURE TREATED POSTS

POST BASE CONNECTION

DETAIL #4

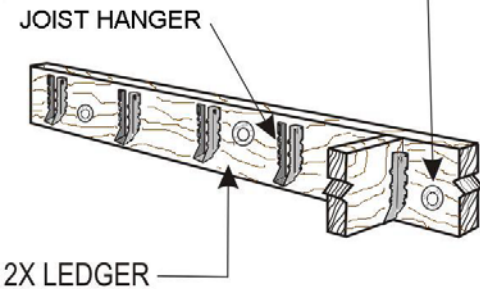


LEDGER ATTACHMENT



CARPORT
DETAIL #1

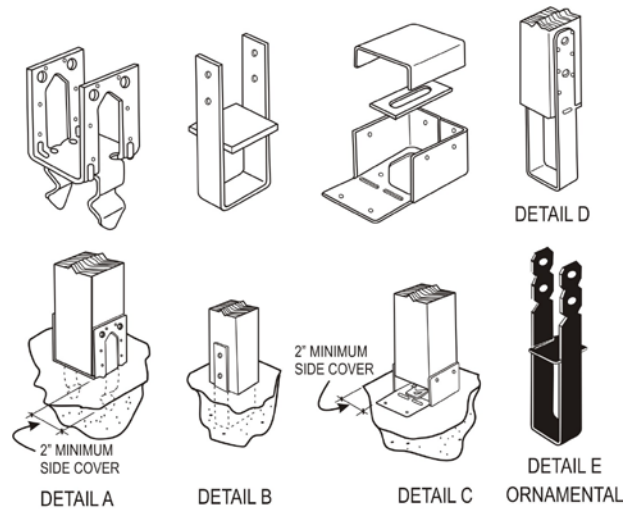
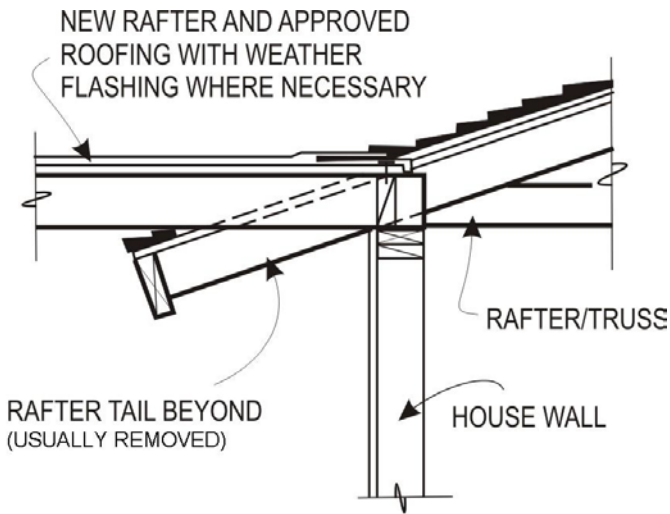
- STAGGER 1/2" X 5" LAG BOLTS:**
- @ 32" O.C MAX. 10' RAFTER SPAN
 - @ 24" O.C MAX. 15' RAFTER SPAN
 - @ 16" O.C MAX. 20' RAFTER SPAN



*LAG BOLTS TO BE PLACED WITHIN 12" OF ALL ENDS AND BREAKS IN LEDGER.

CONNECTION TO BUILDING

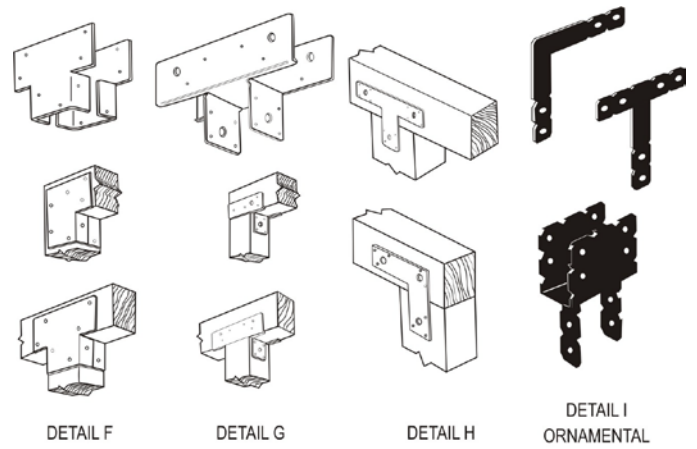
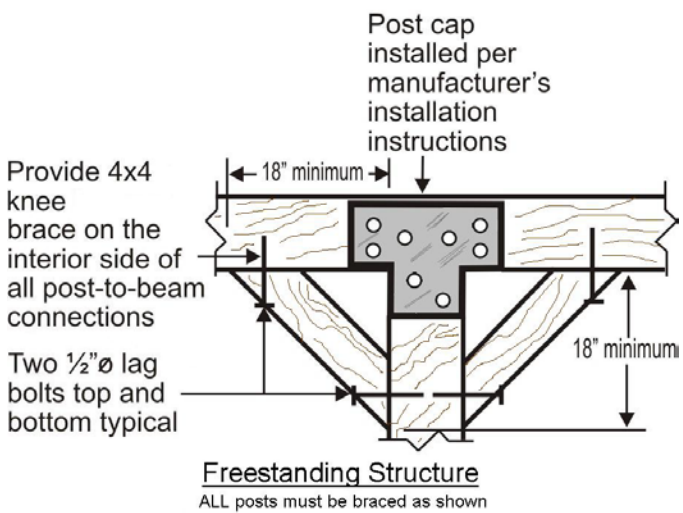
DETAIL #2



COLUMN / POST BASE DETAILS A-E

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

TOP PLATE ATTACHMENT

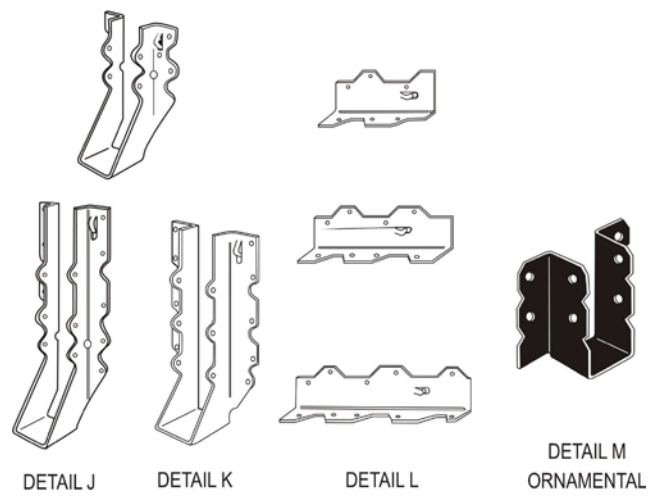


COLUMN / POST CAPS DETAILS F-I

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

NOTES:

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



RAFTER CONNECTION J-M

TABLE 1 Minimum Rafter Sizes (Inches)

Rafter Span (Feet)	Rafter Spacing Center-to-Center (Inches)			
	⁵ / ₁₆ " Plywood sheathing)	³ / ₈ " Plywood sheathing)	¹ / ₂ " Plywood sheathing)	⁵ / ₈ " Plywood sheathing)
6	2x4	2x4	2x4	2x6
7	2x4	2x4	2x6	2x6
8	2x4*	2x6	2x6	2x6
9	2x6	2x6	2x6	2x8
10	2x6	2x6	2x6	2x8
11	2x6	2x6	2x8	2x10
12	2x6	2x8	2x8	2x10
13	2x8	2x8	2x8	2x10
14	2x8	2x8	2x10	2x12
15	2x8	2x8	2x10	2x12
16	2x8	2x10	2x10	2x14
17	2x10	2x10	2x12	2x14
18	2x10	2x10	2x12	-
19	2x10	2x10	2x12	-
20	2x10	2x12	2x12	-

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	14	14
6	12	12	14	14	14	14	16	16
8	14	14	14	16	16	16	18	20
10	14	16	16	18	18	18	20	20
12	16	16	18	20	20	20	22	24
14	16	18	20	20	22	22	24	24
16	18	20	20	22	24	24	27	27
18	20	20	22	24	24	24	27	30
20	20	22	24	24	27	27	30	30

FOOTINGS ON EXPANSIVE SOILS

Footings systems on expansive soil shall be constructed in a manner that will minimize damage to the structure from movement of the soil.

1. Depth of footings below the natural and finished grades shall not be less than 24 inches for exterior and 18 inches for interior footings.
2. Exterior walls and interior bearing walls shall be supported on continuous footings.
3. Footings shall be reinforced with four 1/2-inch diameter deformed reinforcing bars. Two bars shall be placed 4 inches from the bottom of the footing and two bars within 4 inches from the top of the footing.
4. Concrete floor slabs on grade shall be placed on a 4-inch fill of coarse aggregate or on a moisture barrier membrane. The slabs shall be at least 3-1/2 inches thick and shall be reinforced with 1/2" diameter deformed reinforcing bars. Reinforcing bars shall be spaced at intervals not exceeding 16 inches each way.

5. The soil below an interior concrete slab shall be saturated with moisture to a depth of 18 inches prior to placing the concrete.

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	4x6	4x6	4x6	4x6	4x6
8	4x6	4x6	4x6	4x6	4x6	4x8	4x8	4x8
10	4x6	4x6	4x8	4x8	4x8	4x10	4x10	4x10
12	4x8	4x8	4x8	4x10	4x10	4x10	4x12	4x12
			6x8	6x10	6x10	6x10	6x10	6x10
14	4x8	4x10	4x10	4x10	4x12	4x12	4x14	4x14
	6x8	6x8	6x10	6x10	6x10	6x10	6x12	6x12
16	4x10	4x10	4x12	4x12	4x14	-	-	4x14
	6x8	6x10	6x10	6x10	6x12	6x12	6x12	6x14
18	4x10	4x12	4x12	4x14	-	-	-	-
	6x10	6x10	6x12	6x12	6x12	6x14	6x14	-
20	4x12	4x12	4x14	4x14	4x14	-	-	-
	6x10	6x10	6x12	6x12	6x14	-	-	-

Table IV 4 x Rafters

Maximum Span (Feet)	Maximum Spacing Center to Center (Inches)	
	32	48
8	4x4	4x6
9	4x6	4x6
10	4x6	4x6
13	4x6	4x8
15	4x8	4x10
17	4x8	4x10
20	4x10	4x12

DIRECTIONS for TABLES I thru IV:

1. Footings to extend 12" minimum into undisturbed soil.
2. Please indicate appropriate rafter, beam and footing size with a circle around the appropriate spacing and span numbers on each chart.

GENERAL NOTES:

1. Maximum span for 1-inch nominal solid sheathing is 24 inches.
2. 2-inch nominal solid sheathing will span 48 inches.
3. Plywood or OSB sheathing is to comply with Table No.R503.2.1.1(1), California Residential Building Code, for span index.

High or Very High Fire Severity Zones

Structures located in High or Very High Fire Severity Zones shall be of ignition-resistant construction. Roof Coverings to be Class A.