# SD

#### SPECIFICATIONS FOR

# **Carports**

CITY OF SAN DIEGO DEVELOPMENT SERVICES 1222 FIRST AVENUE, MS 301, SAN DIEGO, CA 92101 INFORMATION BULLETIN

205

**March 2013** 

This Information Bulletin describes the minimum requirements for obtaining carport permits for residential buildings using this information bulletin, International Code Council Evaluation Services (ICC-ES) reports, or other conventionally framed plans. For clarification of the permit process, visit the Development Services Department, third floor, 1222 First Avenue or telephone (619) 446-5000.

#### I. DEFINITION

A carport is a covered motor vehicle parking structure accessory to a one or two families dwelling unit. It may be freestanding or attached to another structure. A carport cannot exceed 1,000 square feet in area or one story in height and must be entirely open on two or more sides except for structural supports (CBC 406.1.1). There can be no enclosed use above a carport. Any structure which does not meet the above definition must comply with all regulations relating to a private garage. (CBC 406.1.3)

## II. WHEN IS A PERMIT REQUIRED?

A building permit is required for any new carport or for repair or enclosure of an existing carport. A final inspection must be passed before the work is considered completed by the City of San Diego.

# III. OPTIONS FOR SERVICE

Carport permits may be obtained over-the-counter when using this information bulletin, ICC-ES evaluation reports or designed using conventional wood framing. All other projects are to be submitted. See the Project Submittal Requirements Manual. Appointments are recommended for over-the-counter plan review and submitted projects. Telephone (619) 446-5300 to schedule an appointment.

#### IV. PROJECT FEES

Fees which include Plan Check, Permit and Inspection are charged at initial review. For more information, see Information Bulletin 501.

# V. DRAWINGS TO PROVIDE/FORMS TO COMPLETE

Plans must be drawn to scale and must be of sufficient clarity to indicate the location, nature, and extent of the work proposed. Be sure to clearly label all existing and proposed construction. Plans must show, in detail, that the proposed

# Documents referenced in this Information Bulletin

- 2007 California Building Code, (CBC)
- Project Submittal Manual
- Information Bulletin 117, Regulations Covering Permit Expiration and Extension
- Information Bulletin 165, How to Obtain A Right-of-Way Permit for Standard Public Improvements
- Information Bulletin 501, Fee Schedule, Construction Permits - Structures
- General Application, <u>DS-3032</u>
- Owner-Builder Verification, DS-3042
- <u>Building Newsletter 23-4</u>, Clearance Under Wood Floors

work will conform to the provisions of the 2007 California Building Code, San Diego Municipal Code, and all other relevant laws, ordinances, rules, and regulations. Zoning information is available at the Development Services Department, third floor, 1222 First Avenue, (619) 446-5000, or through our web site <a href="www.sandiego.gov/development-services">www.sandiego.gov/development-services</a>.

Three sets of plans are required and must include the following:

# A. Site Plan

Contact the Development Services Department at (619) 446-5000 for yard setback and other requirements before drawing site plan.

Three copies of a site plan are required for a permit. You must include information on each of the following items on the site plan:

- 1. Name of owner.
- 2. Address and Accessor's Parcel Number where carport is to be built.
- 3. Legal description of property.
- 4. North arrow and scale. Suggested scale: One inch equals 20 feet.
- 5. Boundaries and dimensions of property.\*
- 6. Names of bordering streets.\*
- 7. Distance from front property line to face of curb (or center line of street if no curb exists)\*
- 8. Width of alley(s), if any.\*
- 9. Location and width of easements. Private easements should be shown on the property's deed.\*
- Location and dimensions of existing buildings, structures, retaining walls, paved

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- parking, and driveways. Include distance from property lines.
- Location and dimensions of proposed carport. Include distance from property lines.
- 12. Location and spacing of all posts supporting carport.
- 13. Existing survey hubs, pipes, and similar permanently installed property line identification.
- 14. Location of existing curb cuts to be closed or altered, and location of new curb cuts. A separate permit must be obtained for new curb cuts. See Section VI.

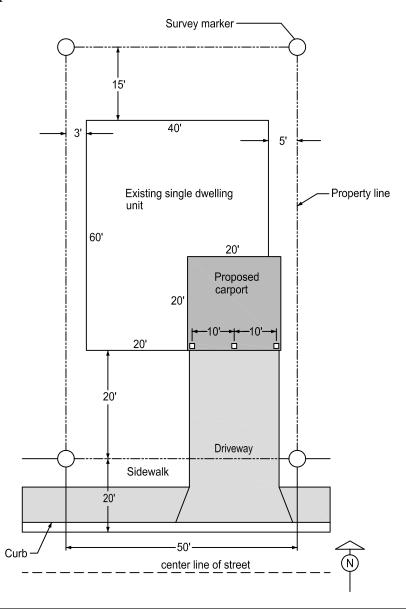
\*This information is available from the Records Section, (619) 446-5200.

# **B.** Foundation and Framing Plans

Provide one of the following:

- 1. One copy of the City of San Diego standard plan (specifications in this information bulletin) with the proposed footing sizes, rafter sizes, and beam sizes highlighted, *or*,
- 2. One copy of (ICC-ES) evaluation reports approved plan available from your material supplier, *or*,
- 3. Three copies of any other plan. These plans should include a roof framing plan, foundation plan, elevations, cross-sections, and connection details.

Figure 1 / Sample Carport Site Plan



#### C. Floor Plan

For carports within six feet of a dwelling, include a floor plan and show the following information:

- 1. Use and dimensions of all rooms adjacent to the carport.
- 2. Size and type of all windows and doors from those rooms.

#### **D. Permit Application**

All projects must be submitted with a Permit Application. Instructions can be found on the reverse side of the application. If you intend to obtain your permit on the same day as plan review, the application must be fully completed. 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 at the Development Services Department before the permit can be issued.

#### VI. ADDITIONAL REGULATIONS

- A. If carport posts are to be located less than five feet (1524 mm) from the property line, and zoning regulations permit the closer location, the carport must have a one-hour fire-resistive wall extending to the underside of the carport sheathing on the property line side to provide fire protection (CBC Table 602). No openings shall be permitted in this wall if carports posts are to be located three feet or closer to the property line and parapet may be required per Section 704.11. Openings (unprotected and protected) shall not exceed 25% of the area of these walls that are between three feet (914 mm) and five feet (1524) from the property line per table 704.8 of the CBC.
- B. No fire protection is required for the common wall between a one- or two-dwelling unit structure and a carport (Section 406.1.4 Item 3).
- C. When exterior openings required for light and/or ventilation occur in the wall of the dwelling unit beneath the carport roof, the minimum height of the carport roof is seven feet, measured from the parking surface to the underside of the rafters (CBC 1208.2).
- D. All electrical wiring and equipment must comply with regulations for exterior installation.
- E. Carports located in the environmental sensitive lands and brush management zones must comply with sections 143.0101 and 142.0412 of the SDMC.

F. Structures located in a Very High Fire Hazard Severity Zone or Brush Management Zones, governed by the City of San Diego's Brush Managagement Ordinances, may need to meet additional fire protection requirements.

#### VII. CURB CUTS

Cutting the curb, closing an existing curb cut or paving a driveway on public property requires a separate permit and must comply with parking regulations Division 5 of the SDMC [142.0501]. See Information Bulletin 165, "How to Obtain A Right-of-Way Permit for Standard Public Improvements."

#### VIII. CONSTRUCTION SPECIFICATIONS

Following are the minimum construction specifications for carports:

- 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. The post anchorage and bracing details shown on the following pages have been approved by the City of San Diego for carports.
  - 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 manufacturer's instructions. The footing must be adequate for the load applied. See Section X below and Table A.
- D. The post anchorage and bracing details shown on the following pages have been approved by the City of San Diego for carports.
  - 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.
  - Post anchorage to slabs 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 X below and Table A. When the load on supporting posts does not exceed 750 pounds per post, a minimum 3 1/2-inch-thick concrete slab-on-grade may

be substituted for the pad footings shown on the typical framing details.

- E. When it is desired to connect and support one side of the carport structure by attaching it directly to the dwelling unit, the rafter spacing and beam sizes may be as shown in Tables B and C. 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" x 5" lag screws spaced at 16" maximum on center. See Figure 7. Carport rafters may not be solely supported by the existing rafter tails or fascia of the house.
- F. Specify roof covering (shingles, shakes, etc.) When submitting plans. If nominal one-inchthick roof sheathing is used, the roof may have rafters spaced not more than 32" on center. If plastic roof coverings are used, installation must be according to manufacturer's recommendations and the corrugations must be placed perpendicular to and across the supports. Roof systems shall be sloped 1/4 inch in 12 inches for drainage.
- G. Post size is based on the height of the deck floor above finished grade (at the highest

0 to 8 feet high: 4x4 minimum, 8 to 10 feet high: 6x6 minimum

## IX. INSPECTIONS

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

A combination 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. Refer to Information Bulletin 117, "Regulation Covering Permit Expiration and Extension", for more information.

Inspections are required at the following times:

- A. When footings have been excavated but before concrete is placed,
- B. When ledger beams 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. Call (858) 581-7111 to schedule inspections.

#### X. **TABLES**

Tables A, B, and C make the following assumptions:

Roof live load is 20 psf. Roof dead load is 7 psf.

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

F<sub>b</sub> = 900 psi F<sub>v</sub> = 180 psi E = 1,600,000 psi

Soil bearing pressure is 1,500 psf minimum. If the above information differs, values in the tables must be adjusted.

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

Post Spacing								
Feet)	Rafter Span (Feet) 1							
	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

<sup>\*</sup>See dimension "A" on "Figure 5"

Table B / Minimum Rafter Sizes (Inches)

Rafter	Rafter Sp	Rafter Spacing Center-to-Center (Inche					
Span	12	16	24	32			
(feet)	(5/16" plywood	(3/8" plywood	(1/2" plywood	(5/8" plywood			
	sheathing)	sheathing)	sheathing)	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)  $^{2}$  Load Duration Factor = 1.

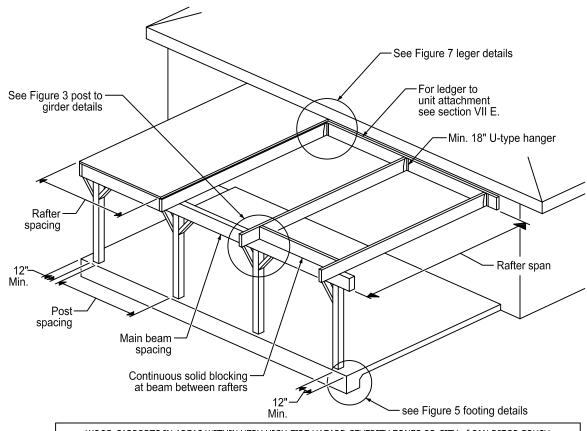
Table C / Minimum Beam Sizes (Inches)

Post Spacing (Feet)				Rafter Sc	oan (In Feet) 1:	2			
(1 0 0 1)	4	6	8	10	12	14	16	18	20
4	4x4								
6 8 10	4x4 4x4 4x4	4x4 4x4 4x6	4x4 4x6 4x6	4x4 4x6 4x6	4x4 4x6 4x6	4x4 4x6 4x6	4x4 4x6 4x8	4x4 4x6 4x8	4x6 4x6 4x8
12	4x6	4x6	4x6	4x8	4x8	4x8 6x8	4x8 6x8	4x8 6x8	4x10 6x8
14	4x6	4x8	4x8	4x8 6x8	4x8 6x8	4x10 6x8	4x10 6x10	4x10 6x10	4x10 6x10
16	4x8	4x8 6x8	4x8 6x8	4x10 6x8	4x10 6x8	4x10 6x10	4x12 6x10	4x12 6x10	4x14 6x10
18	4x8	4x8 6x8	4x10 6x8	4x10 6x8	4x10 6x10	4x12 6x10	4x12 6x10	4x14 6x12	4x14 6x12
20	4x8 6x8	4x10 6x8	4x10 6x10	4x12 6x10	4x12 6x10	4x14 6x12	4x14 6x12	6x12	6x14

 $<sup>^{1}\!</sup>$  Deflection base on L/360 (LL only)  $^{2}$  Load Duration Factor = 1.

 $<sup>^{1}\</sup>mathrm{Assume}$  reenforcing bar size #4 top and bottom, rebar yield Fy=60 ksi

Figure 2 / Typical Carport

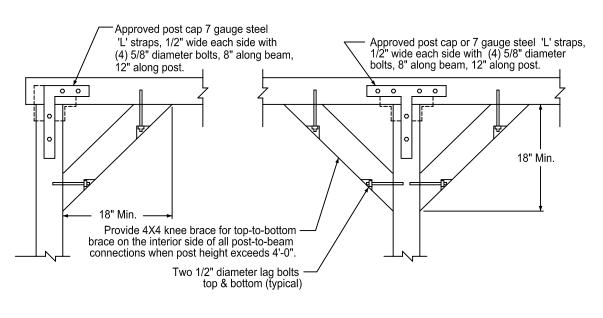


WOOD CARPORTS IN AREAS WITHIN VERY HIGH FIRE HAZARD SEVERITY ZONES OR CITY of SAN DIEGO BRUSH MANAGEMENT ZONES MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS

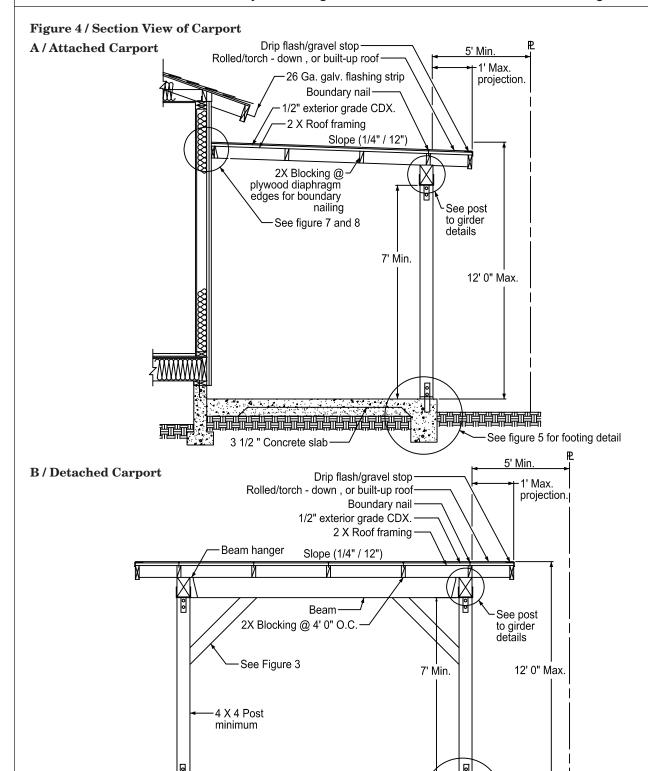
Figure 3 / Post-to-Girder Connection

Case 1 / Connection, Interior Condition

Case 2 / Interior Condition



-See figure 5 for footing detail



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

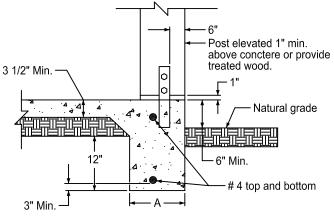
3 1/2 " Concrete slab

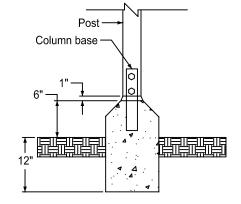
Note: This example illustrate the most common case.

# Figure 5 / Typical Footing Detail

Case 1 / Anchor and Footing Detail, Integrated Slab

Case 2 / Anchor and Footing Detail, Isoletad Pier





Note: Minimum continous footing dimension shall be 12" from end post

Figure 6 / Typical Eave Details

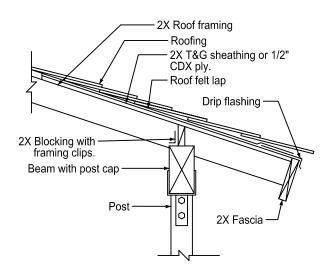


Figure 7 / Typical Rafter Attachment Details

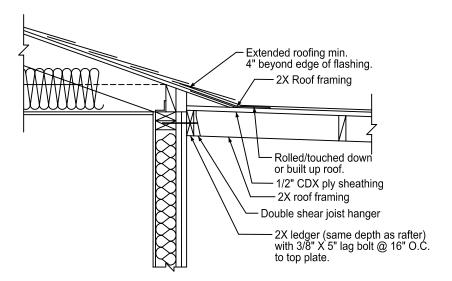
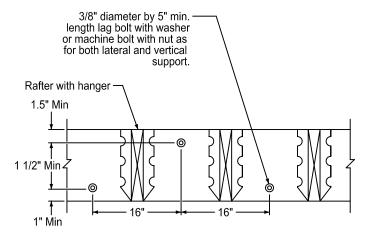


Figure 8 / Typical Ledger Details



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