CITY OF DIXON
600 EAST A ST.
DIXON, CA 95620-3697
PHONE (707) 678-7000
Building Info Building@cityofdixonca.gov

Conventionally Built Patio Covers

General - Purpose

The sample illustrations show how an attached unenclosed patio structure may be built utilizing the California Residential Code (CRC) "Conventional Light Wood- Frame Construction Guidelines". The conventional method allows "repetitive" members in the designs of walls, floors and ceiling, are prescriptive, and ordinarily do not require a structural design to comply with the code.

Design Provisions - Patio Cover Limitations

The following patio cover illustrations are only applicable in residential dwellings classified as R-3 Occupancies.

Patio covers are **not** designed or intended to be used as room additions which require compliance with code provisions such as heating, waterproofing, and normal live and wind loads.
Furthermore, patio covers cannot always be converted to complying room additions without significant additional costs.

Plan Submittal Guidelines - What information is needed to obtain a building permit?

Required ⇨ 1) Site Plan 2) Eleations 3) Roof Framing 4) Cross-Section 5) Framing

Included in the plan submittal should be the following information which clearly depicts the proposed patio cover construction and its relationship to the entire lot. Information such as the size and spacing of all framing members; attachment detail to the exterior wall; roof covering material, connection specifications for beam to post, and for post to footing, etc.

If the patio structure consists of a simple design, please see the **site plan** on page 2. You may refer to the tables on page 3 and **highlight** proposed structural members for allowable size & spacing. Otherwise, a structural analysis/evaluation may be required by a professional engineer licensed in the State of California for the design of structures of unusual shape and/or structures supporting tile, etc. roofing materials (i.e., cellulose, cement).

Fire Setbacks from property line

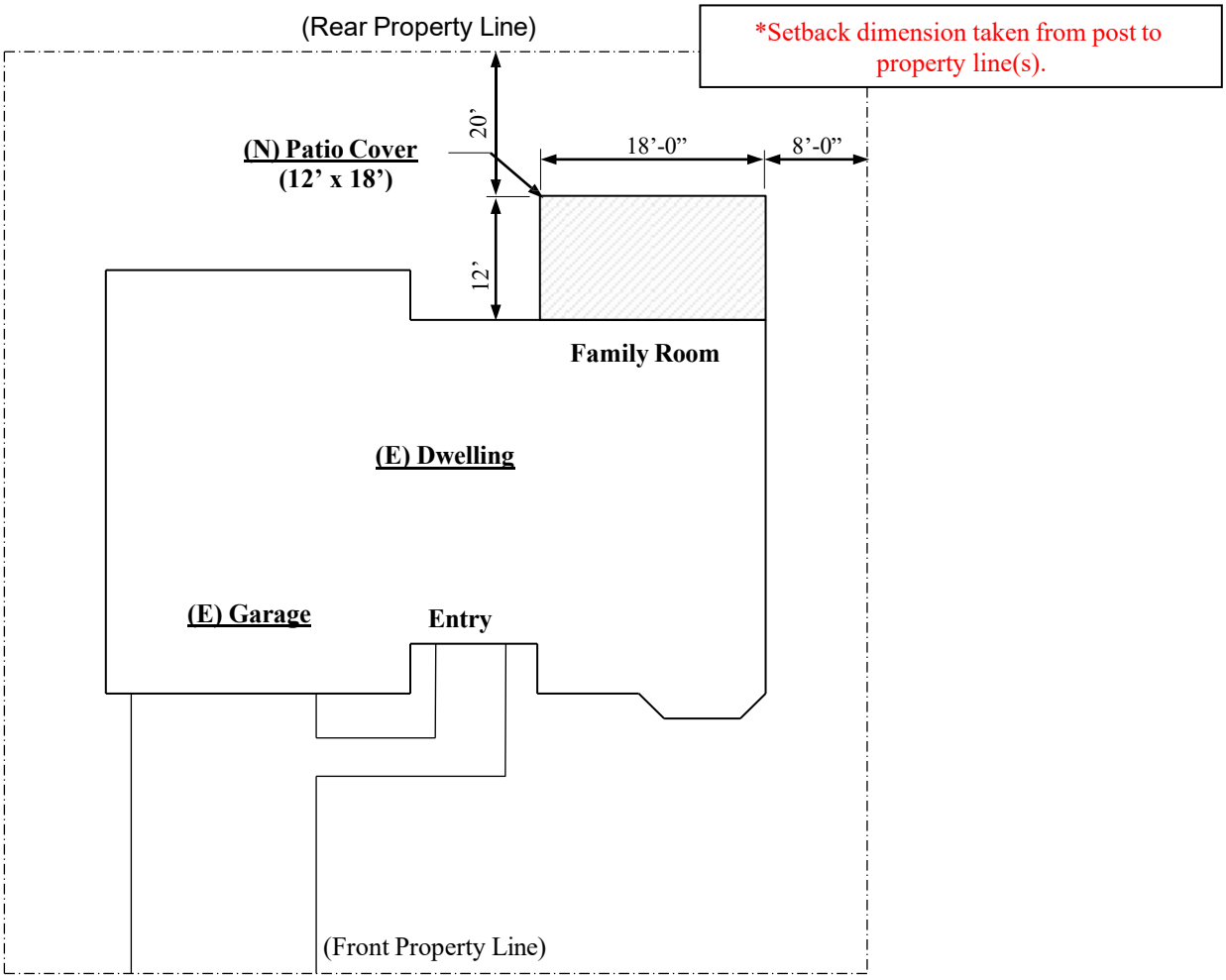
TABLE R302.1(1)
EXTERIOR WALLS

EXTERIOR WALL ELEMENT		MINIMUM FIRE-RESISTANCE RATING	MINIMUM FIRE SEPARATION DISTANCE
Walls	Fire-resistance rated	1 hour—tested in accordance with ASTM E119, UL 263 or Section 703.3 of the *California Building Code* with exposure from both sides	0 feet
	Not fire-resistance rated	0 hours	≥ 5 feet
Projections	Not allowed	NA	< 2 feet
	Fire-resistance rated	1 hour on the underside, or heavy timber, or fire-retardant-treated wood[a, b]	≥ 2 feet to < 5 feet
	Not fire-resistance rated	0 hours	≥ 5 feet
Openings in walls	Not allowed	NA	< 3 feet
	25% maximum of wall area	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section R302.4	< 3 feet
		None required	3 feet

For SI: 1 foot = 304.8 mm.
NA = Not Applicable.
a. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave overhang if fireblocking is provided from the wall top plate to the underside of the roof sheathing.
b. The fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the rake overhang where gable vent openings are not installed.

Exemption: (CBC, Section [A] 105.2)
One story Detached Accessory Structures used as tool and storage sheds, playhouses, etc. 120 sq. ft. in floor area or smaller, with not more than 12- inches of overhang extending beyond the exterior wall of the structure do not require a building permit. The City of Dixon Zoning requirements still apply even when a building permit is not required. Please contact the Dixon Planning Department Planningdepartment@cityofdixonca.gov or 707-678-0960 ext 1786.

Allowed Locations:
Submitted design plans shall require review and approval by the City of Dixon Planning Department staff to review the Zoning Code restrictions for maximum building coverage allowed, height limitations, property line setbacks and maintenance/public utility easement setback distances prior to submitting plans.



Pleasant Street

Property Owner

100 Happy Drive, Dixon, CA

A.P.N. 00-100-2000

Scope of Work: New Attached 12'x18' Patio Cover Designed by *Fancy Patios*

Site Plan

Scale: 1" = 20'-0"

ALLOWABLE SPANS FOR DOUGLAS FIR #2 ROOF RAFTERS (Table R802.4.1(1))

Dead Load = **10** psf & Includes Maximum Roofing Material
Live Load = **20** psf, L / △ = 180

RAFTER SIZE	SPACING	ALLOWABLE SPAN
2x6	24" 16" 12"	11'-11" 14'-7" 16'-10"
2x8	24" 16" 12"	15'-1" 18'-5" 21'-4"
2x10	24" 16" 12"	18'-5" 22'-6" 26'-0"
2x12	24" 16" 12"	21'-4" 26'-0" Spans 26' or greater require engineering.

ALLOWABLE SPANS FOR DOUGLAS FIR #2 CEILING JOISTS (Table R802.5.1(2))

Dead Load = **5** psf
Live Load = **10** psf, L / △ = 240

JOIST SIZE	SPACING	ALLOWABLE SPAN
2x4	24" 16" 12"	9'-10" 11'-3" 12'-5"
2x6	24" 16" 12"	15'-0" 17'-8" 19'-6"
2x8	24" 16" 12"	19'-1" 23'-4" 25'-8"
2x10	24" 16" 12"	23'-3" Spans 26' or greater require engineering.

Type V construction is a classification of buildings by construction materials and methods. It is the least restrictive permitted by the California Residential Code (CRC) and includes light wood-frame construction. This sheet is for information and reference only and is not a substitute for accurate drawings prepared for each proposed construction project.

ALLOWABLE SPANS FOR BEAMS w/o CEILING
Based on Maximum Tributary = **10'-0"** (Span = 20'-0")

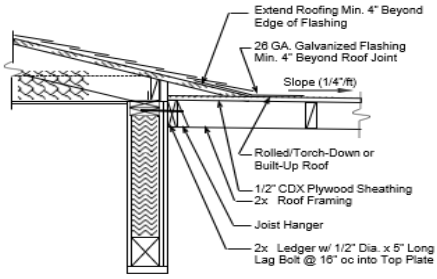
SPAN	BEAM SIZE
Up to 5'-4"	4x4
5'-5" to 7'-9"	4x6
7'-10" to 10'-6"	4x 8
10'-7" to 12'-9"	4x10
11'-10" to 15'-0"	4x12*

*4x12 DF #1 may be used over a 16'-0" garage door in one-story open patio or carport structures.

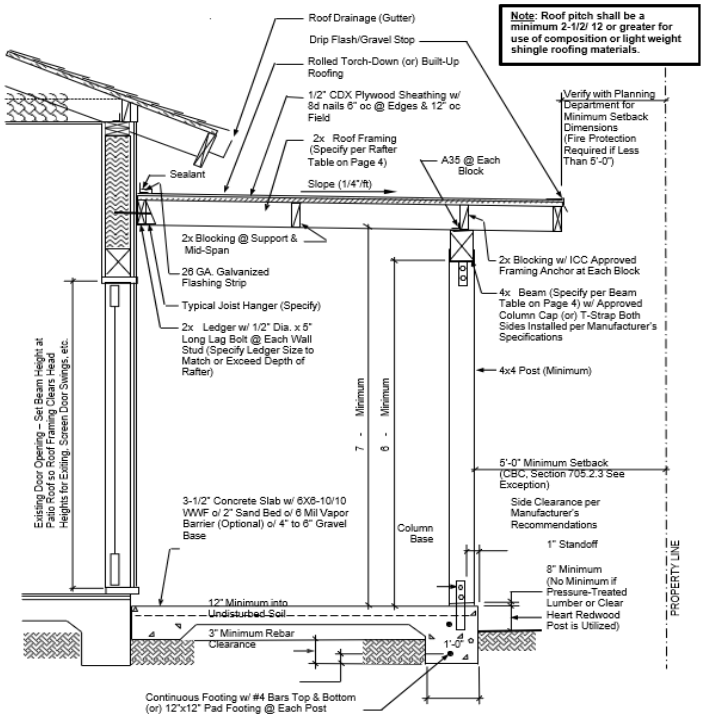
ALLOWABLE SPANS FOR BEAMS w/ CEILING
Based on Maximum Tributary = **10'-0"** (Span = 20'-0")

SPAN	BEAM SIZE
Up to 4'-8"	4x4
4'-9" to 6'-10"	4x6
6'-11" to 9'-0"	4x 8
9'-1" to 11'-0"	4x10
11'-1" to 13'-0"	4x12*

*For spans greater than the table values, engineered calculations are required.



Alternate Connection Detail
(Typical for Patio Covers)



Cross-Section
(Refer to Tables on Page 4 for Member Sizes)

Note: California Residential Code R304.1, states that a wood framing members, including columns, that rest directly on concrete or masonry exterior foundation walls and are less than 8 inches from the exposed ground shall be naturally durable wood or wood that is preservative-treated in accordance with AWPA U1.
Naturally Durable wood: The heartwood of the following: **Decay Resistant** Redwood, cedar, black locust and black walnut. **Termite resistant** Alaska yellow cedar, redwood, Eastern red cedar and Western cedar (including all sapwood-W red cedar)