

**Community Development Department**  
**1600 First St., P.O. Box 660**  
**Napa, CA 94559-0660**

**Engineering Division**  
 Phone: (707) 257-9530

**Planning Division**  
 Phone: (707) 257-9530

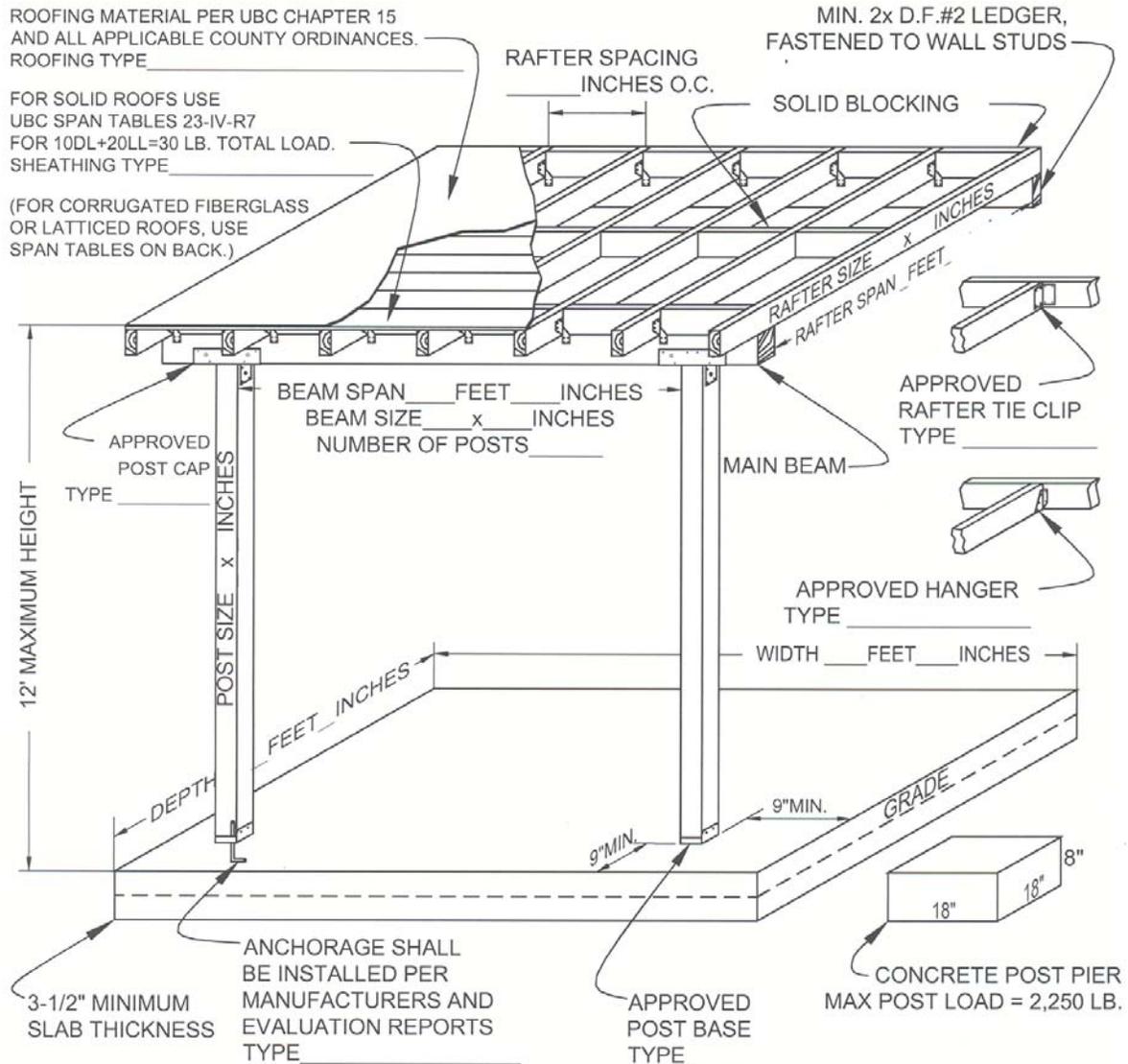
**Building Division**  
 Phone: (707) 257-9540  
 Inspections: (707) 257-1063

Facsimile: (707) 257-9522

**Napa Fire Department**  
**Fire Prevention Division**  
 Phone: (707) 257-9590



**TYPICAL PATIO COVER CONSTRUCTION**



- REFER TO UBC TABLE 23-II-B-1 FOR TYPICAL NAILING REQUIREMENTS.
- REFER TO UBC APPENDIX CHAPTER 31 DIVISION III FOR ALLOWABLE PATIO ENCLOSURE CRITERIA.
- ALL CONNECTIONS TO RESIST 10 POUNDS PER FOOT UPLIFT.
- POST LOAD ON 3-1/2" SLAB NOT TO EXCEED 750 POUNDS

All forms and handouts are available on [www.cityofnapa.org](http://www.cityofnapa.org)

# ALLOWABLE SPANS

PATIO COLUMN HEIGHT TABLE - ALLOWABLE COLUMN LOADS		
Grade	Length (ft.)	Allowable load on post (lbs.)
RW construction common 4" x 4" post	12	1826
RW construction common 4" x 6" post	12	2859
RW construction common 6" x 6" post	12	9131

SIMPLE BEAM SPAN TABLE (For open roofs, i.e.; trellis, etc.)									
For rafter span loading of beam LL + DL per sq. ft. on roof area									
Douglas Fir #2		Live Load = 10 lb/sq ft			Dead Load = 5 lb/sq ft			TOTAL LOAD = 15 lb/sq ft	
(Half of rafter load on beam)	4X6 beam		4X8 beam		4X10 beam		4X12 beam		
	Allowable Span		Allowable Span		Allowable Span		Allowable Span		
feet	feet	inches	feet	inches	feet	inches	feet	inches	
12	12	0	14	1	17	9	21	3	
14	11	0	13	1	16	10	19	10	
16	10	0	12	4	15	6	18	8	
18	9	6	11	8	15	11	17	8	
20	8	0	10	8	13	6	16	10	
22	8	6	10	6	13	0	16	0	
24	8	0	10	1	12	8	15	5	

SIMPLE BEAM SPAN TABLE (For solid covered roofs)									
For rafter span loading of beam LL + DL per sq. ft. on roof area									
Douglas Fir #2		Live Load = 20 lb/sq ft			Dead Load = 10 lb/sq ft			TOTAL LOAD = 30 lb/sq ft	
(Half of rafter load on beam)	4X6 beam		4X8 beam		4X10 beam		4X12 beam		
	Allowable Span		Allowable Span		Allowable Span		Allowable Span		
feet	feet	inches	feet	inches	feet	inches	feet	inches	
12	8	0	11	0	13	9	15	3	
14	7	5	10	0	12	10	14	10	
16	7	0	9	5	11	6	13	8	
18	6	5	9	0	10	11	12	8	
20	6	0	8	5	10	6	11	10	
22	5	5	8	0	9	0	11	0	
24	5	0	7	5	9	8	10	5	

NOTE: The values shown do not include the weight of the beam itself; the weight of the beam has been considered in the calculation

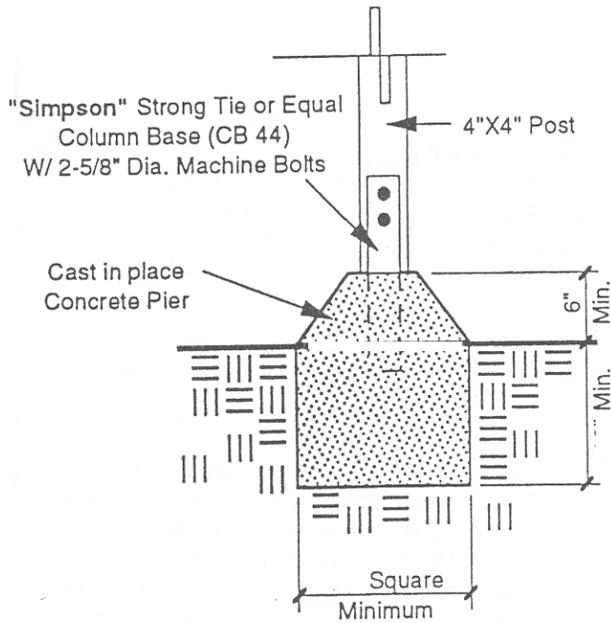
SIMPLE PATIO ROOF RAFTER SPAN TABLE (for open roofs)										
Douglas Fir # 2 Roof Rafter L/240 10LL + 5DL Deflection calculated on LL only										
LL = 10 lb/sq ft			DL = 5 lb/sq ft			TOTAL LOAD = 15 lb/sq ft			Deflection = L/240	
2 x 4			2 x 6			2 x 8				
Spacing in Inches O.C.	Allowable Span		Spacing in Inches O.C.	Allowable Span		Spacing in Inches O.C.	Allowable Span			
	Feet	Inches		Feet	Inches		Feet	Inches		
12	10	11	12	17	1	12	23	5		
16	9	6	16	14	10	16	20	3		
24	7	9	24	12	2	24	16	6		

SIMPLE PATIO ROOF RAFTER SPAN TABLE (for solid roofs)										
Douglas Fir # 2 Roof Rafter L/240 20LL + 10DL Deflection calculated on LL only										
LL = 20 lb/sq ft			DL = 10 lb/sq ft			TOTAL LOAD = 30 lb/sq ft			Deflection = L/240	
2 x 4			2 x 6			2 x 8				
Spacing in Inches O.C.	Allowable Span		Spacing in Inches O.C.	Allowable Span		Spacing in Inches O.C.	Allowable Span			
	Feet	Inches		Feet	Inches		Feet	Inches		
12	9	7	12	15	4	12	20	3		
16	8	6	16	13	9	16	18	1		
24	7	0	24	11	7	24	14	10		

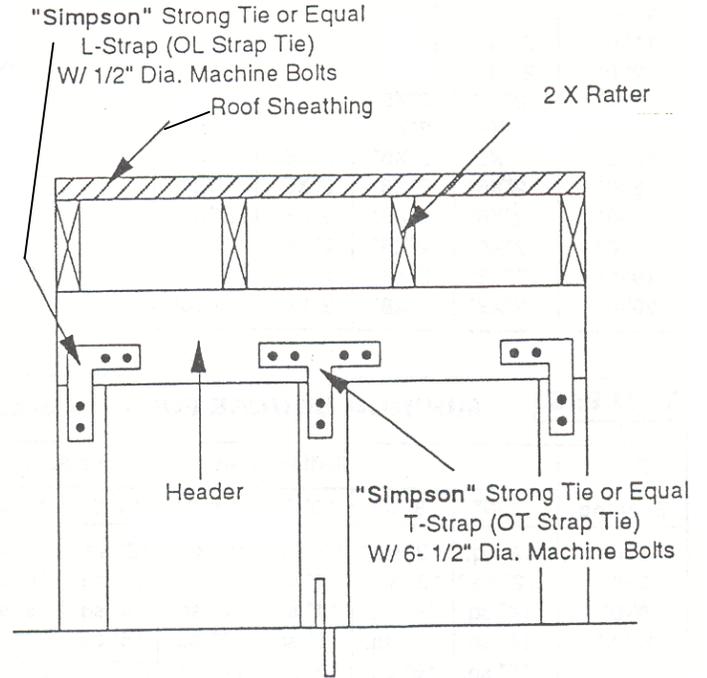
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# TYPICAL PATIO COVER

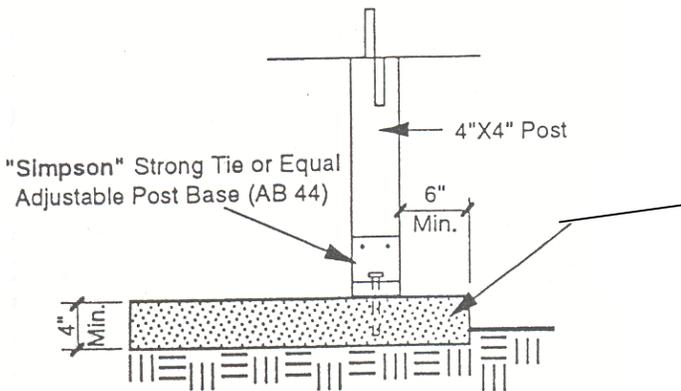
## PIER FOOTING



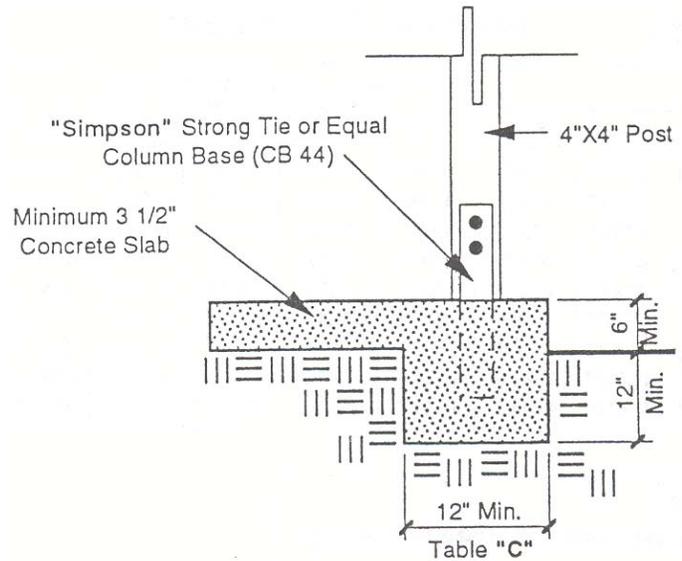
## HEADER ELEVATION



## SLAB FOOTING

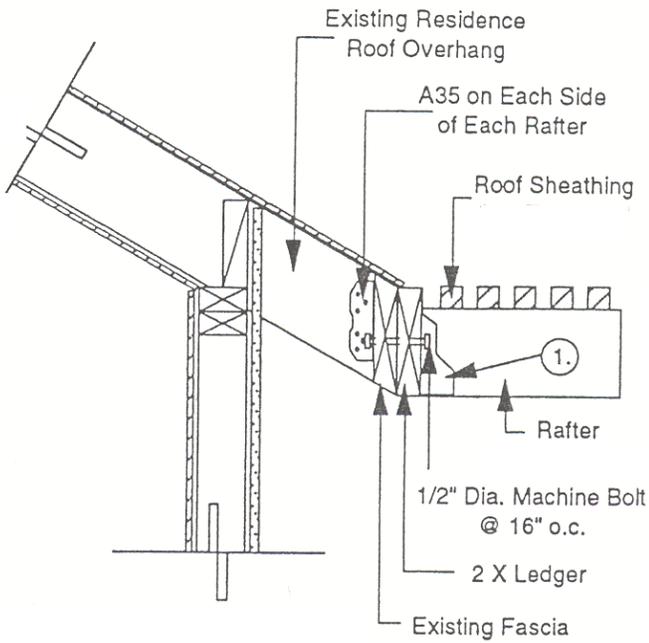


## PAD FOOTING

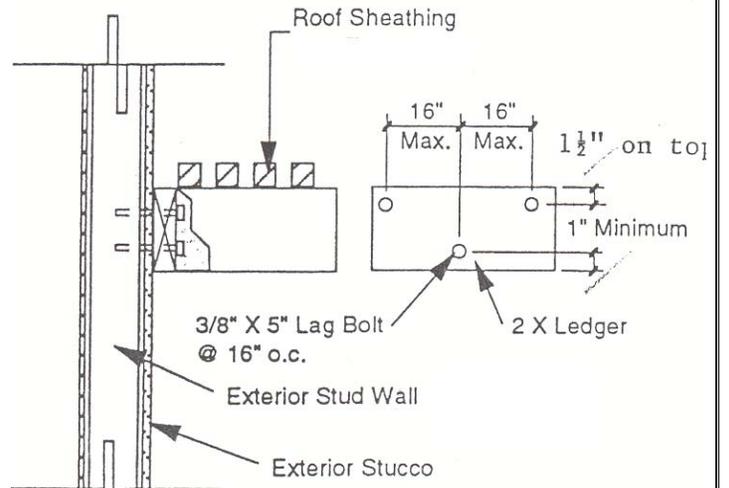


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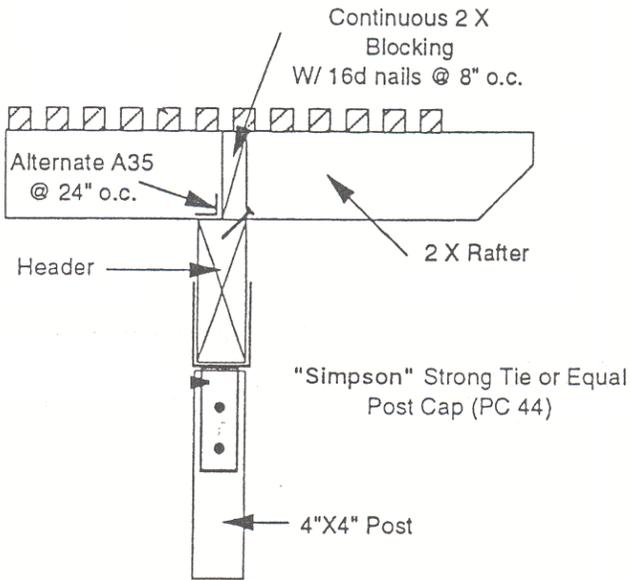
**EAVE CONNECTION**



**LEDGER DETAIL**



**HEADER DETAIL**



**HEADER DETAIL**

