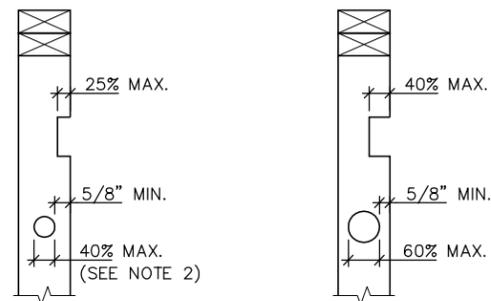
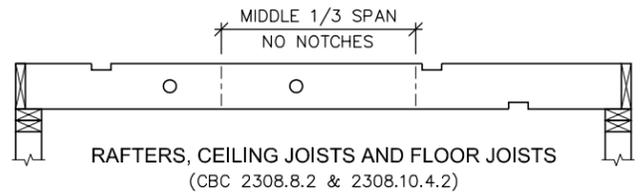
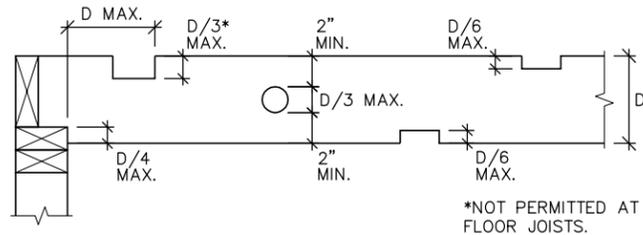






# CONVENTIONAL WOOD-FRAMED CONSTRUCTION SHEET

SUMMARY OF 2015 CBC SEC. 2308 AND CITY OF REDLANDS AMENDMENTS AND ORDINANCES. FOR USE WITH SINGLE-STORY CONSTRUCTION ONLY. DEAD LOAD SHALL NOT EXCEED 15 PSF FOR COMBINED ROOF AND CEILING, OR EXTERIOR WALLS, OR FLOORS AND PARTITIONS. LIVE LOAD SHALL NOT EXCEED 40 PSF. THIS SHEET IS FOR REFERENCE ONLY AND IS NOT A SUBSTITUTE FOR ACCURATE DRAWINGS PREPARED FOR EACH PROPOSED CONSTRUCTION PROJECT.



**BEARING PARTITIONS & ALL EXTERIOR WALLS**

**NON-BEARING PARTITIONS**

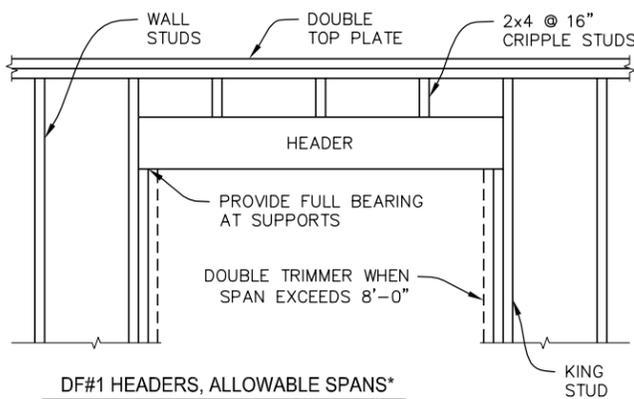
(CBC 2308.9.10 & 2308.9.11)

**NOTES:**

- (1) BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION AS A CUT OR NOTCH.
- (2) BORED HOLES IN BEARING STUDS MAY BE INCREASED TO 60% IF STUDS ARE DOUBLED; NO MORE THAN TWO SUCCESSIVE DOUBLED STUDS MAY BE BORED.

**NOTCHING AND HOLES**

2



**DF#1 HEADERS, ALLOWABLE SPANS\***

SPAN	SIZE
UP TO 4'-0"	4x4
4'-1" TO 6'-0"	4x6
6'-1" TO 8'-0"	4x8
8'-1" TO 10'-0"	4x10
10'-1" TO 12'-0"	4x12

\*MAXIMUM TRIBUTARY WIDTH = 12'-6"

**HEADER/LINTEL**

3

**GENERAL NOTES:**

- (1) SEE FASTENING SCHEDULE (CBC TABLE 2304.9.1) FOR NAILING NOT SHOWN.
- (2) BEARING WALLS AND BRACED WALLS REQUIRE CONTINUOUS FOOTINGS.
- (3) "DF" ON THESE SHEETS REFERS TO DOUGLAS FIR-LARCH. SAWN LUMBER SHALL BE IDENTIFIED BY THE GRADE MARK OF AN APPROVED LUMBER GRADING OR INSPECTION AGENCY PER CBC SEC. 2302.1.1.
- (4) "DL" AND "LL" ON THESE SHEETS INDICATES "DEAD LOAD" AND "LIVE LOAD," RESPECTIVELY.
- (5) WOOD MEMBERS SHALL BE OF SUFFICIENT SIZE TO PREVENT SPLITTING DUE TO NAILING. SPLIT MEMBERS SHALL BE REMOVED AND REPLACED.
- (6) "P.T." ON THESE SHEETS INDICATES PRESERVATIVE-TREATED WOOD.
- (7) WHEN FRAMED WITH ENGINEERED WOOD TRUSSES, ROOF DIAPHRAGMS SHALL BE CONNECTED TO INTERIOR BRACED WALLS BY MEANS OF DRAG TRUSSES OR TRUSS BLOCKING.

**DF#2 RAFTERS, ALLOWABLE SPANS\***

RAFTER SPACING	DL=10 PSF, LL=20 PSF				
	2x4	2x6	2x8	2x10	2x12
12"	9'-10"	15'-6"	20'-5"	25'-8"	-
16"	8'-11"	14'-1"	18'-2"	22'-3"	25'-9"
24"	7'-10"	11'-9"	14'-10"	18'-2"	21'-0"

\*DATA FROM CBC TABLE 2308.10.3(2).

**DF#2 CEILING JOISTS, ALLOWABLE SPANS\***

JOIST SPACING	ATTICS WITHOUT STORAGE, LL=10 PSF				ATTICS WITH LIMITED STORAGE, LL=20 PSF			
	2x4	2x6	2x8	2x10	2x4	2x6	2x8	2x10
12"	12'-5"	19'-6"	25'-8"	-	9'-10"	14'-10"	18'-9"	22'-11"
16"	11'-3"	17'-8"	23'-0"	-	8'-9"	12'-10"	16'-3"	19'-10"
24"	9'-10"	14'-10"	18'-9"	22'-11"	7'-2"	10'-6"	13'-3"	16'-3"

\*DATA FROM CBC TABLE 2308.10.2. ATTICS WITH STORAGE ARE THOSE WHERE THE CLEAR HEIGHT BETWEEN THE CEILING JOIST AND RAFTER IS 42" OR GREATER. ATTICS SHALL BE UNINHABITABLE. CEILING DEAD LOAD SHALL NOT EXCEED 5 PSF.

**RAFTER TIE CONNECTIONS, # 16d COMMON NAILS, SEE NOTE (5)\***

TIE SPACING	ROOF PITCH															
	3:12		4:12			5:12			7:12			9:12			12:12	
	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	SPAN	
12"	3	4	5	3	3	4	3	3	3	3	3	3	3	3	3	3
16"	4	6	7	3	4	5	3	3	4	3	3	3	3	3	3	3
24"	5	8	10	4	6	8	3	5	6	3	4	5	3	4	3	3
32"	7	11	13	5	8	10	4	7	8	3	5	6	3	4	5	3
48"	10	16	19	7	12	15	6	10	12	4	7	9	4	6	7	3

\*CBC TABLE 2308.10.4.1 VALUES ADJUSTED FOR DF#2 FRAMING. THE NUMBER OF NAILS SPECIFIED IN THE TABLE SHALL BE PROVIDED AT EACH CONNECTION. WHEN FULL-HEIGHT INTERIOR BEARING WALLS OR PURLIN BRACING ARE PROVIDED, RAFTER TIE NAILING MAY BE REDUCED PROPORTIONAL TO THE REDUCTION IN RAFTER SPAN; NO LESS THAN 3 NAILS SHALL BE PROVIDED AT EACH CONNECTION. NO SNOW LOAD.

**DF#2 FLOOR JOISTS, ALLOWABLE SPANS\***

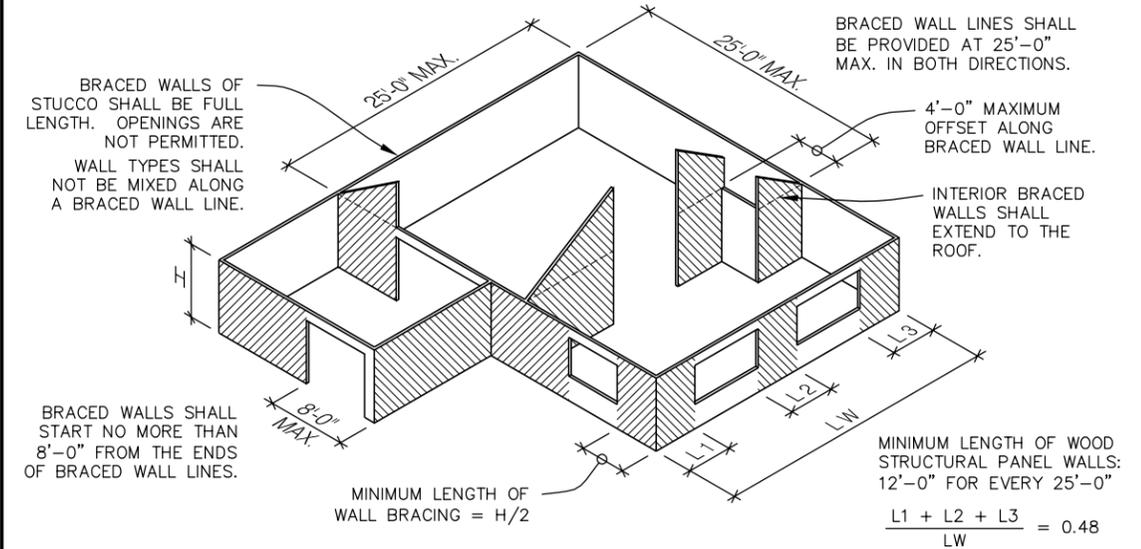
JOIST SPACING	DL=10 PSF, LL=40 PSF			
	2x6	2x8	2x10	2x12
12"	10'-9"	14'-2"	17'-9"	20'-7"
16"	9'-9"	12'-7"	15'-5"	17'-10"
24"	8'-1"	10'-3"	12'-7"	14'-7"

\*DATA FROM CBC TABLE 2308.8(2).

**PLYWOOD OR OSB FLOOR AND ROOF SHEATHING, ALLOWABLE SPANS\***

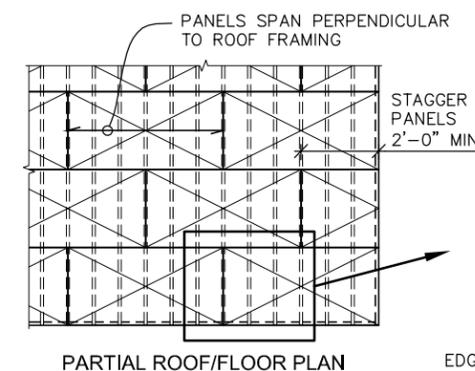
SPAN RATING FLOOR/ROOF	SPAN THICKNESS	SHEATHING GRADES				ROOF		FLOOR	
		MAX. SPAN (in.)		LOADS (psf.)		PANEL EDGES WITH T&G JOINTS OR BLOCKING			
		WITH EDGE SUPPORT	WITHOUT EDGE SUPPORT	TOTAL LOAD	LIVE LOAD	MAX. SPAN (in.)	MAX. SPAN (in.)		
24/0	7/16, 1/2	24	20	40	40	0	0		
24/16	7/16, 1/2	24	24	50	50	16	16		
32/16	15/32, 1/2, 5/8	32	28	40	40	16	16		
40/20	19/32, 5/8, 3/4, 7/8	40	32	40	30	20	20		
48/24	23/32, 3/4, 7/8	48	36	45	45	24	24		

\*DATA FROM CBC TABLE 2304.7(3). SHEATHING PANELS SHALL BE CONTINUOUS OVER TWO OR MORE SPANS AND PERPENDICULAR TO SUPPORTS. FOR 1/2" SHEATHING, MAXIMUM SPAN SHALL BE 24". EDGE SUPPORT MAY BE PROVIDED BY TONGUE AND GROOVE EDGES, 2X BLOCKING, OR PANEL EDGE CLIPS.

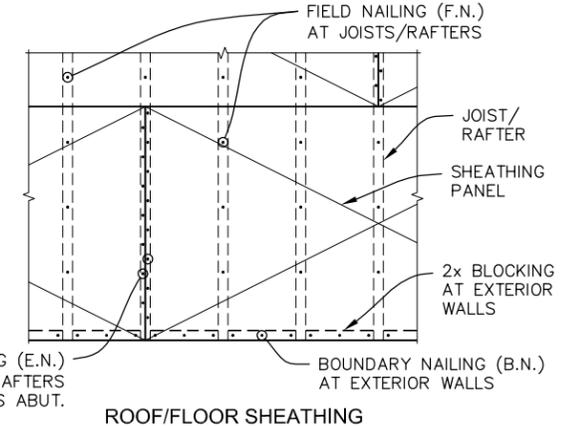


**BASIC COMPONENTS OF THE LATERAL BRACING SYSTEM**

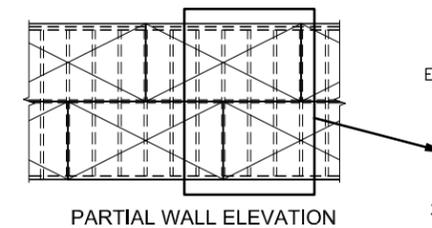
1



**PARTIAL ROOF/FLOOR PLAN**



**ROOF/FLOOR SHEATHING**



**PARTIAL WALL ELEVATION**

**PANEL NAILING SCHEDULE**

	B.N. / E.N. / F.N.
ROOFS:	8d @ 6" / 6" / 12"
FLOORS:	10d @ 6" / 6" / 10"
WALLS:	8d @ 6" / 12"

**NOTES:**

- (1) NAILS SHALL BE PLACED 3/8" FROM PANEL EDGES.
- (2) PROVIDE 1/8" GAP BETWEEN SHEATHING PANELS.
- (3) MINIMUM DIMENSION OF SHEATHING PANEL IN ANY DIRECTION SHALL BE 2'-0"
- (4) WALL SHEATHING PANELS MAY BE INSTALLED WITH THE LONG DIRECTION ORIENTED VERTICALLY.