

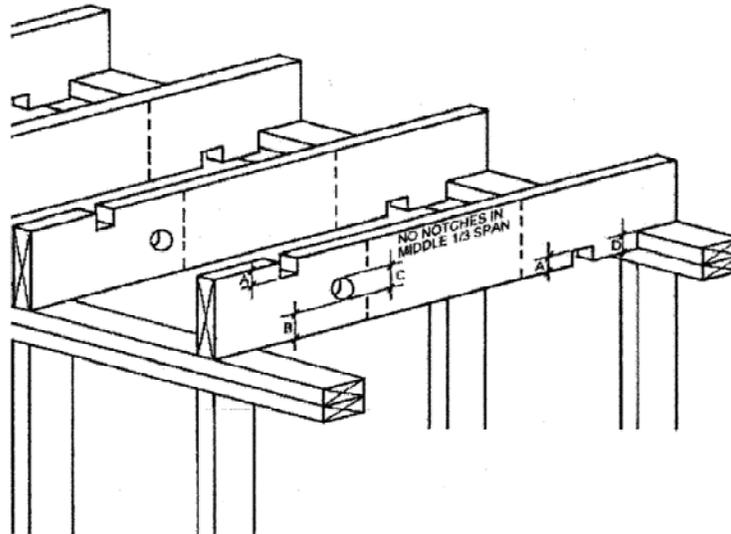


**BUILDING DEPARTMENT
INFORMATIONAL HANDOUT #6**

NOTCHES/PENETRATIONS IN ROOF, CEILING, AND FLOOR FRAMING

Notching and boring holes in roof, ceiling and floor framing should be avoided whenever possible, especially on the tension side of the member. However, occasionally notches or holes are required to accommodate electrical or plumbing lines. Refer to the following illustration and tables to establish maximum dimensions when notching and boring holes in roof, ceiling and floor framing.

DETAIL	DEPTH AND DIAMETER OF NOTCHES AND HOLES
A	Notches in the top and bottom of joists and rafters shall not exceed one sixth (1/6) the depth of the member and shall not be located in the middle one third (1/3) of the span.
B	Holes bored in joists and rafters shall not be within 2 inches of the top and bottom edge of the member.
C	The diameter of holes bored in joists and rafters shall not exceed one third (1/3) the depth of the member.
D	Notching at the ends of joists and rafters shall not exceed one fourth (1/4) the depth of the member.



Joist & Rafter Size	Max. Notch Depth	Max. End Notch Depth	Max. Hole Diameter	Minimum Bearing Wood	Concrete
2" x 6"	7/8"	1-3/8"	1-13/16"	1-1/2"	3"
2" x 8"	1-3/16"	1-13/16"	2-3/8"	1-1/2"	3"
2" x 10"	1-1/2"	2-5/16"	3-1/16"	1-1/2"	3"
2" x 12"	1-7/8"	2-13/16"	3-3/4"	1-1/2"	3"