
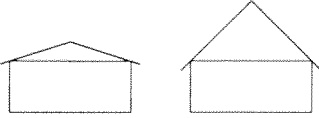
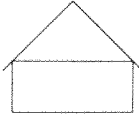
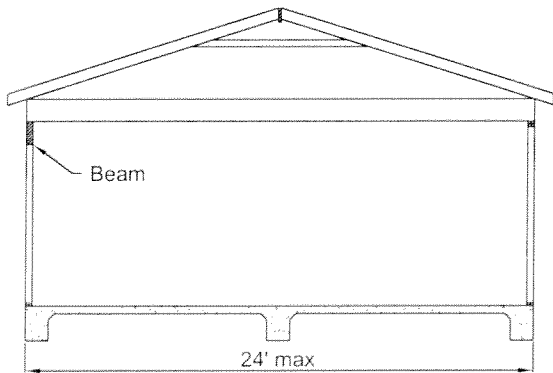
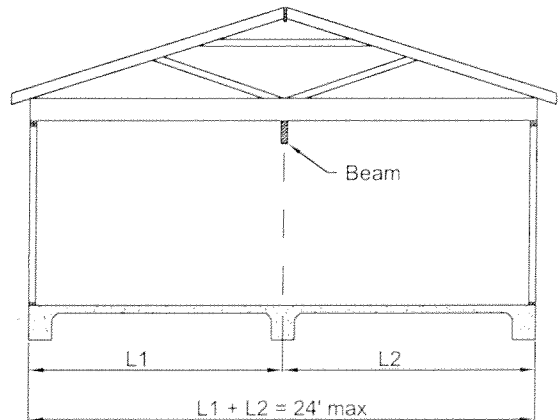


Maximum Allowable Beam Span

Roof Pitch (Table R301.6)	Less than 4:12		4:12 to less than 1:1		1:1 and greater	
	 (Roof Live Load = 20 psf)		 (Roof Live Load = 16 psf)		 (Roof Live Load = 12 psf)	
Beam Size (Inches)	No Storage	With Storage	No Storage	With Storage	No Storage	With Storage
(2) - 2x4	3'-6"	3'-6"	3'-9"	3'-9"	4'-0"	4'-0"
(2) - 2x6	5'-3"	5'-3"	5'-9"	5'-9"	6'-3"	6'-0"
(2) - 2x8	6'-9"	6'-9"	7'-3"	7'-3"	7'-9"	7'-9"
(2) - 2x10	8'-0"	8'-0"	8'-6"	8'-6"	9'-3"	9'-0"
(2) - 2x12	9'-6"	9'-6"	10'-3"	10'-3"	11'-0"	10'-9"
(2) - 2x14	11'-0"	11'-0"	11'-9"	11'-9"	12'-9"	12'-6"
(3) - 2x12	11'-9"	11'-9"	12'-6"	12'-6"	13'-6"	13'-3"
(3) - 2x14	13'-6"	13'-6"	14'-3"	14'-3"	15'-6"	15'-3"
3 1/2 x 11 Glu-Lam Beams	14'-9"	13'-6"	16'-0"	14'-6"	17'-3"	15'-6"
3 1/2 x 11 7/8 Engineered beams <small>(Parallam, Laminated Veneer Lumber, Power Beam, ...)</small>	17'-0"	15'-9"	18'-3"	16'-6"	20'-0"	17'-9"



Beam is subjected to loads from one side.



Beam is subjected to loads from two side.

Notes:

1. Use # 2 S.Y.P. or higher grade.
2. Minimum bearing required = 3" (2 studs).
3. Max. length of joists supported by beam = 24'
4. Beams with spans greater than table values need to be engineered.

CITY OF HOUSTON

Department of Public Works and Engineering

Residential Beam Supporting a Roof
(Maximum allowable span)

Approved by: 
Building Official

Approved by: 
City Engineer

Revision Date: 6-27-2013

Dwg No: 12-02-R (Revision 1)

1 of 1